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 <212> PRT  
 <213> Homo sapiens

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 Pro His Gly Pro Pro Gly Pro Leu Gly Leu Leu Gly Val Arg Pro Gly  
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Gln Ser Pro Gly Asp Ala Leu Arg Arg Val Phe Glu Cys Ile Ser Ser
      325              330              335
Gly Ile Ile Leu Lys Gly Ser Pro Gly Leu Leu Asp Pro Cys Glu Lys
      340              345              350
Asp Pro Phe Asp Thr Leu Ala Thr Met Thr Asp Gln Gln Arg Glu Asp
      355              360              365
Ile Thr Ser Ser Ala Gln Phe Ala Leu Arg Leu Leu Ala Phe Arg Gln
      370              375              380
Ile His Lys Val Leu Gly Met Asp Pro Leu Pro Gln Met Ser Gln Arg
 385              390              395
Phe Asn Ile His Asn Asn Arg Lys Arg Arg Arg Asp Ser Asp Gly Val
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Asp Gly Phe Glu Ala Glu Gly Lys Lys Asp Lys Asp Tyr Asp Asn
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Phe

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&lt;210&gt; 5021

&lt;211&gt; 494

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5021

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&lt;210&gt; 5022

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5022

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Gly Asn Ser Ser Cys Tyr Gly Val Leu Pro Thr Glu Glu Pro Val Tyr
      50           55           60
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      65           70           75           80
Asn Ile His Gln Ser Leu Gln Asn Ile Thr Glu Asn Gln Leu Val Gln
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Pro Thr Ile Leu Gln Gln Lys Gly Gly Lys Gly Arg Lys Lys Leu Arg
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&lt;210&gt; 5023

&lt;211&gt; 3482

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5023

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<212> PRT

<213> Homo sapiens

<400> 5024

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			20					25					30		
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Leu	Arg	Arg	Arg	Met	Leu	Ala	Ala	Ala	Arg	Asn	Gly	Gly	Phe	Arg	Ser
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						100			105				110		
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Pro Ala Ser Cys Ile Arg Pro Thr Asn Ala Gly Val Leu Ser Thr Thr
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Pro Ser Gly Lys Ser Val Gly Glu Ala His Ser Val Ser Pro Pro Pro
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210              215              220
His Val Asp Cys Ala Arg Ala Arg Pro Thr Gly Ser Cys Thr Pro Glu
225              230              235              240
Gln Gln Gly Ile Leu Glu Lys Glu Leu Leu Val Arg Tyr Leu Glu Gln
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260              265              270
Cys Pro Thr Thr Ser Gly Thr Asp Phe Pro Ser Leu Gln Ser Lys Ala
275              280              285
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&lt;210&gt; 5025

&lt;211&gt; 2596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5025

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<211> 136

<212> PRT

<213> Homo sapiens

<400> 5026

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<211> 359

<212> DNA

<213> Homo sapiens

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<210> 5030

<211> 188

<212> PRT

<213> Homo sapiens

<400> 5030

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			20				25						30		
Val	Ile	Leu	Ile	Phe	Cys	Leu	Met	Thr	Leu	Ile	Gly	Asn	Leu	Phe	Ile
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Ile	Pro	Gln	Leu	Leu	Val	Ser	Leu	Trp	Gly	Val	Glu	Lys	Thr	Ile	Ser
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Tyr	Ala	Gly	Cys	Met	Val	Gln	Leu	Tyr	Phe	Phe	Leu	Thr	Leu	Gly	Thr
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Thr	Glu	Cys	Val	Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Arg	Tyr	Ala	Ala
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Val	Cys	Arg	Pro	Leu	His	Tyr	Thr	Val	Leu	Met	His	Ser	Arg	Phe	Cys
			130			135						140			
His	Leu	Leu	Ala	Val	Ala	Ser	Trp	Val	Ser	Gly	Phe	Thr	Asn	Pro	Ala
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Leu	His	Ser	Ser	Phe	Thr	Phe	Trp	Val	Pro	Leu	Cys	Gly	His	Arg	Gln
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 <212> DNA  
 <213> Homo sapiens

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<210> 5032  
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<400> 5032  
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 Met Gly Val Leu Ala Arg Glu Ala Pro His Leu Glu Lys Gln Pro Ala  
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 Ala Gly Pro Gln Arg Val Leu Pro Gly Glu Arg Glu Glu Arg Pro Pro  
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 Ser Ser Gln Cys Gly Lys Tyr Tyr Ser Ser Val Pro Glu Glu Gly Gly  
 100 105 110  
 Ala Thr His Val Tyr Arg Tyr His Arg Gly Glu Ser Lys Leu His Met  
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<210> 5033  
 <211> 2888

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5033

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 2888

&lt;210&gt; 5034

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5034

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 Cys Val Glu Val Thr Gly Lys Phe Arg Gly Gly Val Asn Pro Phe Thr  
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 Arg Gly Cys Cys Gly Asn Val Glu His Val Leu Cys Ser Pro Leu Ala  
 65 70 75 80  
 Pro Arg Tyr Val Val Glu Pro Pro Arg Leu Pro Leu Ala Val Ser Leu  
 85 90 95  
 Lys Pro Pro Phe Leu Arg Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu  
 100 105 110  
 Lys Val Lys Leu Ser Asp Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser  
 115 120 125  
 Lys Ser Lys Gly Ser Leu Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu  
 130 135 140  
 Gly Pro Pro Leu Pro Pro Lys Ile Glu Ala Gly Thr Phe Ser Ser Asp  
 145 150 155 160  
 Leu Gln Thr Pro Arg Pro Gly Ser Ala Glu Ser Ala Leu Ser Val Gln  
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 Arg Thr Ser Pro Pro Thr Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe  
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 Pro Thr Gly Pro Lys Val Pro Phe Cys Gly Pro Gly Glu Gln Val Pro  
 195 200 205  
 Gly Pro Asp Ser Leu Thr Leu Gly Asp Asp Asn Ile Arg Ser Leu Asp  
 210 215 220  
 Phe Val Ser Glu Pro Ser Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly  
 225 230 235 240  
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 245 250 255  
 Phe Ser Gly Ala Leu Arg Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg  
 260 265 270  
 Gly Gly Asp His Val Ala Leu Gln Pro Leu Arg Ser Glu Gly Gly Pro  
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 Pro Thr Pro His Arg Ser Ile Phe Ala Pro His Ala Leu Pro Asn Arg  
 290 295 300  
 Asn Gly Ser Leu Ser Tyr Asp Ser Leu Leu Asn Pro Gly Ser Pro Gly  
 305 310 315 320  
 Gly His Ala Cys Pro Ala His Pro Ala Val Gly Val Ala Gly Tyr His  
 325 330 335  
 Ser Pro Tyr Leu His Pro Gly Ala Thr Gly Asp Pro Pro Arg Pro Leu  
 340 345 350  
 Pro Arg Ser Phe Ser Pro Val Leu Gly Pro Arg Pro Arg Glu Pro Ser  
 355 360 365  
 Pro Val Arg Tyr Asp Asn Leu Ser Arg Thr Ile Met Ala Ser Ile Gln  
 370 375 380  
 Glu Arg Lys Asp Arg Glu Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala  
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 405 410 415  
 Ser Leu Gln Gln Ala Ser Val Leu Ser Glu Gly Pro Arg Gly Pro Ala

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          450          455          460
Ser Val Ser Arg Ala Pro Arg Thr Ser Ser Ser Ser Leu Gln Ala Asp
          465          470          475          480
Gln Ala Ser Ser Asn Ala Pro Gly Ala Pro Ala Gln Gln Trp Leu Thr
          485          490          495
Gln Val Thr Cys Thr Pro Gly Pro Ala Leu Pro Ala Arg His Ser Pro
          500          505          510
Leu Thr Ile Leu Arg Gly Pro Gln Ser Cys Arg Leu His Pro His Gly
          515          520          525
Pro Pro Arg Ala Thr Ala Leu Ala Asp Arg Ala Glu Gly Pro Pro Ser
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Ala Glu Asp Ser Pro Lys
545          550

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&lt;210&gt; 5035

&lt;211&gt; 2002

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5035

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&lt;210&gt; 5036

&lt;211&gt; 384

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5036

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 Phe Gly Gln Ala Glu Lys Thr Glu Leu Asp Ala His Phe Glu Asn Leu  
 35 40 45  
 Leu Ala Arg Ala Asp Ser Thr Lys Asn Trp Thr Glu Lys Ile Leu Arg  
 50 55 60  
 Gln Thr Glu Val Leu Leu Gln Pro Asn Pro Ser Ala Arg Val Glu Glu

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Ile	Ser	Lys	Glu	Ser	Arg	Leu	Leu	Gln	Asn	Arg	Arg	Leu	Asp	Leu	Asp
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Ala	Cys	Lys	Ala	Arg	Leu	Lys	Lys	Ala	Lys	Ala	Ala	Glu	Ala	Lys	Ala
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Ala	Gln	Thr	Glu	Phe	Asp	Arg	Gln	Ala	Glu	Val	Thr	Arg	Leu	Leu	Leu
	210				215						220				
Glu	Gly	Ile	Ser	Ser	Thr	His	Val	Asn	His	Leu	Arg	Cys	Leu	His	Glu
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Phe	Val	Lys	Ser	Gln	Thr	Thr	Tyr	Tyr	Ala	Gln	Cys	Tyr	Arg	His	Met
			245					250					255		
Leu	Asp	Leu	Gln	Lys	Gln	Leu	Gly	Ser	Ser	Gln	Gly	Ala	Ile	Ser	Arg
		260					265					270			
His	Leu	Arg	Gly	His	His	Arg	Ala	Arg	Leu	Pro	Pro	Leu	Ser	Ser	Thr
	275					280					285				
Ser	Pro	Thr	Thr	Ala	Ala	Ala	Thr	Met	Pro	Val	Val	Pro	Ser	Val	Ala
	290				295					300					
Ser	Leu	Ala	Pro	Pro	Gly	Glu	Ala	Ser	Leu	Cys	Leu	Glu	Glu	Val	Ala
305				310					315					320	
Pro	Pro	Ala	Ser	Gly	Thr	Arg	Lys	Ala	Arg	Val	Leu	Tyr	Asp	Tyr	Glu
			325					330					335		
Ala	Ala	Asp	Ser	Ser	Glu	Leu	Ala	Leu	Leu	Ala	Asp	Glu	Leu	Ile	Thr
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Val	Tyr	Ser	Leu	Pro	Gly	Met	Asp	Pro	Asp	Trp	Leu	Ile	Gly	Glu	Arg
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&lt;210&gt; 5037

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5037

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<211> 533

<212> PRT

<213> Homo sapiens

<400> 5038

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&lt;210&gt; 5039

&lt;211&gt; 3059

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5039

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&lt;210&gt; 5040

&lt;211&gt; 616

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5040

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<210> 5041

<211> 2461

<212> DNA

<213> Homo sapiens

<400> 5041

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&lt;210&gt; 5042

&lt;211&gt; 686

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5042

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Leu	Leu	Ala	Ala	Met	Leu	Arg	Gly	Leu	Ala	Gly	Gly	Arg	Val	Leu	Ala														
610										615										620									
Leu	Leu	Glu	Glu	Asn	Ser	Thr	Pro	Gln	Leu	Ala	Gly	Ile	Leu	Ala	Arg														
625										630										635									
Val	Leu	Asn	Gly	Glu	Ala	Pro	Pro	Ser	Leu	Gly	Pro	Ser	Ser	Val	Ala														
645										650										655									
Ser	Pro	Glu	Asp	Val	Gln	Ala	Leu	Met	Tyr	Leu	Arg	Gly	Gln	Leu	Glu														
660										665										670									
Pro	Gln	Trp	Lys	Met	Leu	Gln	Cys	His	Pro	His	Leu	Val	Ala																
675										680										685									

&lt;210&gt; 5043

&lt;211&gt; 1824

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5043

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caggaccggc gggctcctgg ggttcagccg tgcgcctctg ttacgatgac cagtgtgggt  
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aagacagtgt atagcctgca gccccctctc gcgctgagcg gcggccagcc ggcagacaca  
180  
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360  
aaaccactga gtaagcaaaa atcagaggaa gagctcaagg acaagaacca gctgttagaa  
420  
gccgtcaaca agcagttgca ccagaagttg actgaaactc agggagagct gaaggacctg  
480

accagaagg tagagctgct ggagaagttt cgggacaact gtttggaat tttggagagc  
540  
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600  
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720  
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1740  
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1800  
aaaatagttg aaatggcaaa cttt  
1824

&lt;210&gt; 5044

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5044

Ala Gly Gly Thr Thr Val Ala Ala Gly Asn Leu Leu Asn Glu Ser Glu

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Lys Asp Cys Gly Gln Asp Arg Arg Ala Pro Gly Val Gln Pro Cys Arg
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Leu Val Thr Met Thr Ser Val Val Lys Thr Val Tyr Ser Leu Gln Pro
                35                40                45
Pro Ser Ala Leu Ser Gly Gly Gln Pro Ala Asp Thr Gln Thr Arg Ala
                50                55                60
Thr Ser Lys Ser Leu Leu Pro Val Arg Ser Lys Glu Val Asp Val Ser
        65                70                75                80
Lys Gln Leu His Ser Gly Gly Pro Glu Asn Asp Val Thr Lys Ile Thr
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Lys Leu Arg Arg Glu Asn Gly Gln Met Lys Ala Thr Asp Thr Ala Thr
                100                105                110
Arg Arg Asn Val Arg Lys Gly Tyr Lys Pro Leu Ser Lys Gln Lys Ser
                115                120                125
Glu Glu Glu Leu Lys Asp Lys Asn Gln Leu Leu Glu Ala Val Asn Lys
        130                135                140
Gln Leu His Gln Lys Leu Thr Glu Thr Gln Gly Glu Leu Lys Asp Leu
        145                150                155                160
Thr Gln Lys Val Glu Leu Leu Glu Lys Phe Arg Asp Asn Cys Leu Ala
                165                170                175
Ile Leu Glu Ser Lys Gly Leu Asp Pro Ala Leu Gly Ser Glu Thr Leu
                180                185                190
Ala Ser Arg Gln Glu Ser Thr Thr Asp His Met Asp Ser Met Leu Leu
                195                200                205
Leu Glu Thr Leu Gln Glu Glu Leu Lys Leu Phe Asn Glu Thr Ala Lys
        210                215                220
Lys Gln Met Glu Glu Leu Gln Ala Leu Lys Val Lys Leu Glu Met Lys
        225                230                235                240
Glu Glu Arg Val Arg Phe Leu Glu Gln Gln Thr Leu Cys Asn Asn Gln
                245                250                255
Val Asn Asp Leu Thr Thr Ala Leu Lys Glu Met Glu Gln Leu Leu Glu
        260                265                270
Met

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&lt;210&gt; 5045

&lt;211&gt; 462

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5045

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120
tctctctcag ttgttacgta gcttttcaga aacacacaaa ctacaaataa tgaacaacat
180
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240
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300
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360

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ctagtaagca ctatcctttg tactccctca acgtggcctc catgtggttg aagctaggga  
 420  
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 462

<210> 5046

<211> 92

<212> PRT

<213> Homo sapiens

<400> 5046

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Gly	Ile	Trp	Arg	Gly	Arg	Trp	Trp	Ala	Glu	Val	Gly	Pro	Lys	His	Gly
		20						25					30		
Ser	Leu	Arg	Leu	Thr	Ala	Pro	Ser	Leu	Trp	Gly	Gly	Ser	Val	Ala	Arg
		35					40					45			
Asp	Met	Val	Ala	Cys	Cys	Leu	Phe	Ser	Cys	Ser	Ser	Lys	His	Tyr	Pro
	50				55						60				
Leu	Tyr	Ser	Leu	Asn	Val	Ala	Ser	Met	Trp	Leu	Lys	Leu	Gly	Arg	Leu
65				70					75						80
Tyr	Met	Gly	Leu	Glu	His	Lys	Ala	Ala	Arg	Asp	Glu				
				85					90						

<210> 5047

<211> 3380

<212> DNA

<213> Homo sapiens

<400> 5047

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 120  
 gtcaacgagc ggggcaacca ctgcgagtac tgcttcacca ggaagaagg attgtccaaa  
 180  
 tgtggaagat gcaagcaggc attttactgc aatgtggagt gtcagaaaga agattggccc  
 240  
 atgcacaagc tggaatgttc tcccatggtt gtttttgggg aaaactggaa tcctcggag  
 300  
 actgtaagac taacagcaag gattctggcc aaacagaaaa tccaccacaga gagaacacct  
 360  
 tcggaaaaat tgtagctgt gaaggagttt gaatcacatc tgataagtt agacaatgatg  
 420  
 aagaaggatt tgattcagag tgacatagct gctctccatc acttttactc caagcatctc  
 480  
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 600  
 atgaatcata gctgttggcc caatgtcatt gtgacctaca aaggggaccct ggacagaagt  
 660  
 agagctgtac aggaatcaa gccgggagag gaggttttta ccagctatat tgatctcctg  
 720

tacccaacgg aagatagaaa tgaccgggta agagattctt atttctttac ctgtgagtgc  
780  
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840  
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1080  
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1200  
ctgaagaagg ccattgcaat catggaagta gctcacggca aagatcatcc atatatttct  
1260  
gagatcaaac aggaaattga aagccactga aactatgcag catttcagtt ttcatttaaa  
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2160  
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 2760  
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&lt;210&gt; 5048

&lt;211&gt; 429

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5048

Gly	Ser	Arg	Ser	Ser	Glu	Arg	Phe	Cys	Ser	Pro	Gly	Lys	Gly	Arg	Xaa
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Leu	Arg	Ala	Leu	Gln	Pro	Phe	Gln	Val	Gly	Asp	Leu	Leu	Phe	Ser	Cys
			20					25					30		
Pro	Ala	Tyr	Ala	Tyr	Val	Leu	Thr	Val	Asn	Glu	Arg	Gly	Asn	His	Cys
			35				40				45				
Glu	Tyr	Cys	Phe	Thr	Arg	Lys	Glu	Gly	Leu	Ser	Lys	Cys	Gly	Arg	Cys
			50			55				60					
Lys	Gln	Ala	Phe	Tyr	Cys	Asn	Val	Glu	Cys	Gln	Lys	Glu	Asp	Trp	Pro
65					70				75				80		
Met	His	Lys	Leu	Glu	Cys	Ser	Pro	Met	Val	Val	Phe	Gly	Glu	Asn	Trp

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      85              90              95
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Lys Ile His Pro Glu Arg Thr Pro Ser Glu Lys Leu Ala Val Lys
      115              120              125
Glu Phe Glu Ser His Leu Asp Lys Leu Asp Asn Glu Lys Lys Asp Leu
      130              135              140
Ile Gln Ser Asp Ile Ala Ala Leu His His Phe Tyr Ser Lys His Leu
      145              150              155
Glu Phe Pro Asp Asn Asp Ser Leu Val Val Leu Phe Ala Gln Val Asn
      165              170              175
Cys Asn Gly Phe Thr Ile Glu Asp Glu Glu Leu Ser His Leu Gly Ser
      180              185              190
Ala Ile Phe Pro Asp Val Ala Leu Met Asn His Ser Cys Cys Pro Asn
      195              200              205
Val Ile Val Thr Tyr Lys Gly Thr Leu Ala Glu Val Arg Ala Val Gln
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Glu Ile Lys Pro Gly Glu Glu Val Phe Thr Ser Tyr Ile Asp Leu Leu
      225              230              235
Tyr Pro Thr Glu Asp Arg Asn Asp Arg Leu Arg Asp Ser Tyr Phe Phe
      245              250              255
Thr Cys Glu Cys Gln Glu Cys Thr Thr Lys Asp Lys Asp Lys Ala Lys
      260              265              270
Val Glu Ile Arg Lys Leu Ser Asp Pro Pro Lys Ala Glu Ala Ile Arg
      275              280              285
Asp Met Val Arg Tyr Ala Arg Asn Val Ile Glu Glu Phe Arg Arg Ala
      290              295              300
Lys His Tyr Lys Ser Pro Ser Glu Leu Leu Glu Ile Cys Glu Leu Ser
      305              310              315
Gln Glu Lys Met Ser Ser Val Phe Glu Asp Ser Asn Val Tyr Met Leu
      325              330              335
His Met Met Tyr Gln Ala Met Gly Val Cys Leu Tyr Met Gln Asp Trp
      340              345              350
Glu Gly Ala Leu Gln Tyr Gly Gln Lys Ile Ile Lys Pro Tyr Ser Lys
      355              360              365
His Tyr Pro Leu Tyr Ser Leu Asn Val Ala Ser Met Trp Leu Lys Leu
      370              375              380
Gly Arg Leu Tyr Met Gly Leu Glu His Lys Ala Ala Gly Glu Lys Ala
      385              390              395
Leu Lys Lys Ala Ile Ala Ile Met Glu Val Ala His Gly Lys Asp His
      405              410              415
Pro Tyr Ile Ser Glu Ile Lys Gln Glu Ile Glu Ser His
      420              425

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&lt;210&gt; 5049

&lt;211&gt; 2422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5049

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&lt;210&gt; 5050

&lt;211&gt; 619

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5050

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		20					25					30			
Gln	His	Val	Cys	Glu	Thr	Ile	Ile	Arg	Ile	Phe	Lys	Arg	His	Gly	Ala
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Glu	His	Asn	Glu	Ser	Ala	Leu	Phe	Met	Asp	His	Ser	Gly	Met	Leu	Val
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Met	Leu	Pro	Phe	Asp	Leu	Arg	Ile	Pro	Phe	Ala	Arg	Tyr	Val	Ala	Arg
			85					90					95		
Asn	Asn	Ile	Leu	Asn	Leu	Lys	Arg	Tyr	Cys	Ile	Glu	Arg	Val	Phe	Arg
			100					105					110		
Pro	Arg	Lys	Leu	Asp	Arg	Phe	His	Pro	Lys	Glu	Leu	Leu	Glu	Cys	Ala
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Ile	Ile	Tyr	Thr	Ile	Tyr	Glu	Ile	Ile	Gln	Glu	Phe	Pro	Ala	Leu	Gln
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Glu	Arg	Asn	Tyr	Ser	Ile	Tyr	Leu	Asn	His	Thr	Met	Leu	Leu	Lys	Ala
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Ile	Leu	Leu	His	Cys	Gly	Ile	Pro	Glu	Asp	Lys	Leu	Ser	Gln	Val	Tyr

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180      185      190
Ile Ile Leu Tyr Asp Ala Val Thr Glu Lys Leu Thr Arg Arg Glu Val
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Thr Leu Gln Xaa Leu Leu Asn Arg Arg Glu Ile Xaa Ala Arg Ser Tyr
225      230      235      240
Ala Asn Asn Xaa Asn Ser Leu Ile Lys Gln Lys Thr Gly Ile Ala Gln
245      250      255
Leu Val Lys Tyr Gly Leu Lys Asp Leu Glu Glu Val Val Gly Leu Leu
260      265      270
Lys Lys Leu Gly Ile Lys Leu Gln Val Leu Ile Asn Leu Gly Leu Val
275      280      285
Tyr Lys Val Gln Gln His Asn Gly Ile Ile Phe Gln Phe Val Ala Phe
290      295      300
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305      310      315      320
Arg Tyr Asp Leu Leu Ile Pro Gln Phe Arg Gly Pro Gln Ala Leu Gly
325      330      335
Pro Val Pro Thr Ala Ile Gly Val Ser Ile Ala Ile Asp Lys Ile Ser
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Ala Ala Val Leu Asn Met Glu Glu Ser Val Thr Ile Ser Ser Cys Asp
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385      390      395      400
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Glu Ile Thr Tyr Val Ala Leu Val Ser Asp Lys Glu Gly Ser His Val
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Glu Thr Glu Leu Val Asp His Val Leu Gln Lys Leu Arg Thr Lys Val
450      455      460
Thr Asp Glu Arg Asn Gly Arg Glu Ala Ser Asp Asn Leu Ala Val Gln
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Asn Leu Lys Gly Ser Phe Ser Asn Ala Ser Gly Leu Phe Glu Ile His
485      490      495
Gly Ala Thr Val Val Pro Ile Val Ser Val Leu Ala Pro Glu Lys Leu
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Gln Thr Ser Leu Ala Asn Leu His Gln Lys Ser Ser Glu Ile Glu Ile
530      535      540
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Glu Trp Asp Ala Asp Glu Gln Ala Phe Asn Thr Thr Val Lys Gln Leu
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Ile Tyr Asn Ile Lys Val Glu Lys Lys Val Ser Val Leu Phe Leu Tyr
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Ser Tyr Arg Asp Asp Tyr Tyr Arg Ile Leu Phe

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610

615

&lt;210&gt; 5051

&lt;211&gt; 4125

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5051

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&lt;210&gt; 5052

&lt;211&gt; 433

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5052

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 Glu Ser Gly Asp Glu Phe Thr Tyr Gly Asp Val Pro Val Glu Asn Gly  
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 Gly Met Pro Val Thr Phe Thr Cys Arg Val Ala Gly Asn Pro Lys Pro

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His	Tyr	Thr	Ile	Gln	Arg	Asp	Leu	Asp	Gly	Thr	Cys	Ser	Leu	His	Thr					
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Thr	Ala	Ser	Thr	Leu	Asp	Asp	Asp	Gly	Asn	Tyr	Thr	Ile	Met	Ala	Ala					
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Asn	Pro	Gln	Gly	Arg	Ile	Ser	Cys	Thr	Gly	Arg	Leu	Met	Val	Gln	Ala					
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				165					170					175						
Pro	Ile	Gln	Glu	Arg	Phe	Phe	Arg	Pro	His	Phe	Leu	Gln	Ala	Pro	Gly					
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Asp	Leu	Thr	Val	Gln	Glu	Gly	Lys	Leu	Cys	Arg	Met	Asp	Cys	Lys	Val					
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Ser	Gly	Leu	Pro	Thr	Pro	Asp	Leu	Ser	Trp	Gln	Leu	Asp	Gly	Lys	Pro					
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Val	Arg	Pro	Asp	Ser	Ala	His	Lys	Met	Leu	Val	Arg	Glu	Asn	Gly	Val					
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Thr	Cys	Ile	Ala	Thr	Asn	Arg	Ala	Gly	Gln	Asn	Ser	Phe	Ser	Leu	Glu					
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Leu	Val	Val	Ala	Ala	Lys	Glu	Ala	His	Lys	Pro	Pro	Val	Phe	Ile	Glu					
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Lys	Leu	Gln	Asn	Thr	Gly	Val	Ala	Asp	Gly	Tyr	Pro	Val	Arg	Leu	Glu					
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			325					330						335						
Asn	His	Gly	Thr	Ile	Cys	Leu	Leu	Ile	Gln	Gly	Ala	Thr	Lys	Glu	Asp					
		340						345					350							
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		355					360					365								
Cys	Thr	Ala	Arg	Leu	Asp	Val	Tyr	Thr	Gln	Trp	His	Gln	Gln	Ser	Gln					
		370				375					380									
Ser	Thr	Lys	Pro	Lys	Lys	Val	Arg	Pro	Ser	Ala	Ser	Arg	Tyr	Ala	Ala					
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<210> 5053

<211> 781

<212> DNA

<213> Homo sapiens

<400> 5053

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&lt;210&gt; 5054

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5054

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Val	Gly	Pro	Cys	Pro	Lys	Met	Ser	Pro	Leu	Arg	Pro	Leu	Leu	Leu	Ala
			20					25					30		
Leu	Ala	Leu	Ala	Ser	Val	Pro	Cys	Ala	Gln	Gly	Ala	Cys	Pro	Ala	Ser
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Ala	Asp	Leu	Lys	His	Ser	Asp	Gly	Thr	Arg	Thr	Cys	Ala	Lys	Leu	Tyr
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Asp	Lys	Ser	Asp	Pro	Tyr	Tyr	Glu	Asn	Cys	Cys	Gly	Gly	Ala	Glu	Leu
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Ser	Leu	Glu	Ser	Gly	Ala	Asp	Leu	Pro	Tyr	Leu	Pro	Ser	Asn	Trp	Ala
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Asn	Thr	Ala	Ser	Ser	Leu	Val	Val	Ala	Pro	Arg	Cys	Glu	Leu	Thr	Val
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Trp	Ser	Arg	Gln	Gly	Lys	Ala	Gly	Lys	Thr	His	Lys	Phe	Ser	Ala	Gly
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Thr	Tyr	Pro	Arg	Leu	Glu	Glu	Tyr	Arg	Arg	Gly	Ile	Leu	Gly	Asp	Trp
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145

150

155

&lt;210&gt; 5055

&lt;211&gt; 2520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5055

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&lt;210&gt; 5056

&lt;211&gt; 672

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5056

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 Ile Leu Ser Ala Ser Ser Thr Tyr Phe His Gln Leu Phe Ser Val Ala  
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 Gly Gln Val Val Glu Leu Ser Phe Ile Arg Ala Glu Ile Phe Ala Glu

65					70					75					80
Ile	Leu	Asn	Tyr	Ile	Tyr	Ser	Ser	Lys	Ile	Val	Arg	Val	Arg	Ser	Asp
				85					90					95	
Leu	Leu	Asp	Glu	Leu	Ile	Lys	Ser	Gly	Gln	Leu	Leu	Gly	Val	Lys	Phe
			100					105					110		
Ile	Ala	Glu	Leu	Gly	Val	Pro	Leu	Ser	Gln	Val	Lys	Ser	Ile	Ser	Gly
			115					120					125		
Thr	Ala	Gln	Asp	Gly	Asn	Thr	Glu	Pro	Leu	Pro	Pro	Asp	Ser	Gly	Asp
			130					135					140		
Lys	Asn	Leu	Val	Ile	Gln	Lys	Ser	Lys	Asp	Glu	Ala	Gln	Asp	Asn	Gly
			145					150					155		160
Ala	Thr	Ile	Met	Pro	Ile	Ile	Thr	Glu	Ser	Phe	Ser	Leu	Ser	Ala	Glu
			165					170						175	
Asp	Tyr	Glu	Met	Lys	Lys	Ile	Ile	Val	Thr	Asp	Ser	Asp	Asp	Asp	Asp
			180					185						190	
Asp	Asp	Val	Ile	Phe	Cys	Ser	Glu	Ile	Leu	Pro	Thr	Lys	Glu	Thr	Leu
			195					200					205		
Pro	Ser	Asn	Asn	Thr	Val	Ala	Gln	Val	Gln	Ser	Asn	Pro	Gly	Pro	Val
			210					215					220		
Ala	Ile	Ser	Asp	Val	Ala	Pro	Ser	Ala	Ser	Asn	Asn	Ser	Pro	Pro	Leu
			225					230					235		240
Thr	Asn	Ile	Thr	Pro	Thr	Gln	Lys	Leu	Pro	Thr	Pro	Val	Asn	Gln	Ala
			245					250						255	
Thr	Leu	Ser	Gln	Thr	Gln	Gly	Ser	Glu	Lys	Leu	Leu	Val	Ser	Ser	Ala
			260					265						270	
Pro	Thr	His	Leu	Thr	Pro	Asn	Ile	Ile	Leu	Leu	Asn	Gln	Thr	Pro	Leu
			275					280						285	
Ser	Thr	Pro	Pro	Asn	Val	Ser	Ser	Ser	Leu	Pro	Asn	His	Met	Pro	Ser
			290					295					300		
Ser	Ile	Asn	Leu	Leu	Val	Gln	Asn	Gln	Gln	Thr	Pro	Asn	Ser	Ala	Ile
			305					310						315	320
Leu	Thr	Gly	Asn	Lys	Ala	Asn	Glu	Glu	Glu	Glu	Glu	Glu	Ile	Ile	Asp
			325					330						335	
Asp	Asp	Asp	Asp	Thr	Ile	Ser	Ser	Ser	Pro	Asp	Ser	Ala	Val	Ser	Asn
			340					345						350	
Thr	Ser	Leu	Val	Pro	Gln	Ala	Asp	Thr	Ser	Gln	Asn	Thr	Ser	Phe	Asp
			355					360						365	
Gly	Ser	Leu	Ile	Gln	Lys	Met	Gln	Ile	Pro	Thr	Leu	Leu	Gln	Glu	Pro
			370					375						380	
Leu	Ser	Asn	Ser	Leu	Lys	Ile	Ser	Asp	Ile	Ile	Thr	Arg	Asn	Thr	Asn
			385					390						395	400
Asp	Pro	Gly	Val	Gly	Ser	Lys	His	Leu	Met	Glu	Gly	Gln	Lys	Ile	Ile
			405					410						415	
Thr	Leu	Asp	Thr	Ala	Thr	Glu	Ile	Glu	Gly	Leu	Ser	Thr	Gly	Cys	Lys
			42												

	500		505		510
Phe	Asn Ile His Ser Trp Glu Lys Lys Tyr Pro Cys Arg Tyr Cys Glu				
	515		520		525
Lys Val Phe Pro Leu Ala Glu Tyr Arg Thr Lys His Glu Ile His His					
	530		535		540
Thr Gly Glu Arg Arg Tyr Gln Cys Leu Ala Cys Gly Lys Ser Phe Ile					
545		550		555	560
Asn Tyr Gln Phe Met Ser Ser His Ile Lys Ser Val His Ser Gln Asp					
	565		570		575
Pro Ser Gly Asp Ser Lys Leu Tyr Arg Leu His Pro Cys Arg Ser Leu					
	580		585		590
Gln Ile Arg Gln Tyr Ala Tyr His Ser Asp Arg Ser Ser Thr Ile Pro					
	595		600		605
Ala Met Lys Asp Asp Gly Ile Gly Tyr Lys Val Asp Thr Gly Lys Glu					
	610		615		620
Pro Pro Val Gly Thr Thr Thr Ser Thr Gln Asn Lys Pro Met Thr Trp					
625		630		635	640
Glu Asp Ile Phe Ile Gln Gln Glu Asn Asp Ser Ile Phe Lys Gln Asn					
	645		650		655
Val Thr Asp Gly Ser Thr Glu Phe Glu Phe Ile Ile Pro Glu Ser Tyr					
	660		665		670

&lt;210&gt; 5057

&lt;211&gt; 673

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5057

```

nnggcggcgc agctattgct ggacggccag tgggagagcg aggcctgagc ctctgcgtct
60
aggatcaaaa tggtttcaat ccagaatac tatgaaggca agaacgtcct cctcacagga
120
gctaccgggtt ttctagggaa ggtgcttctg gaaaagttgc tgaggtcttg tctcaagggtg
180
aattcagtat atgttttggg gaggcagaaa gctggacaga caccacaaga gcgagtggaa
240
gaagtcctta gtggcaagct ttttgacaga ttgagagatg aaaatccaga ttttagagag
300
aaaattatag caatcaacag cgaactcacc caacctaaac tggctctcag tgaagaagat
360
aaagagggtga tcatagattc taccaatatt atattccact gtgcagctac agtaagggtt
420
aatgaaaatt taaggtaagt acaagtaatt atataatatt tgaacttcag tatagttatt
480
aaaaaatctc attttaattc tacttttttag tcaatttgtt ttgaatgtga tttgatacta
540
tttgctctag ttaactgtgg ctttcagtgt cctacagagt gttaaagaa tctctcttct
600
cttctcagtt taaaaatctt ggataactaa tacatgttta ttggaagaag ttgccatgaa
660
tttaaacatg cat
673

```

&lt;210&gt; 5058

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5058

```

Met Val Ser Ile Pro Glu Tyr Tyr Glu Gly Lys Asn Val Leu Leu Thr
 1           5           10           15
Gly Ala Thr Gly Phe Leu Gly Lys Val Leu Leu Glu Lys Leu Leu Arg
          20           25           30
Ser Cys Pro Lys Val Asn Ser Val Tyr Val Leu Val Arg Gln Lys Ala
          35           40           45
Gly Gln Thr Pro Gln Glu Arg Val Glu Glu Val Leu Ser Gly Lys Leu
          50           55           60
Phe Asp Arg Leu Arg Asp Glu Asn Pro Asp Phe Arg Glu Lys Ile Ile
65          70          75          80
Ala Ile Asn Ser Glu Leu Thr Gln Pro Lys Leu Ala Leu Ser Glu Glu
          85          90          95
Asp Lys Glu Val Ile Ile Asp Ser Thr Asn Ile Ile Phe His Cys Ala
          100         105         110
Ala Thr Val Arg Phe Asn Glu Asn Leu Arg
          115         120

```

&lt;210&gt; 5059

&lt;211&gt; 480

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5059

```

ctcgagaact gaaagacact ctctatgggt taagccaccc agtgcattgt atcttgttat
60
aactgccga gctgactgag acggacgttc aggacagaga gcgtgaatgc atagtgcac
120
cagctgtgag tctttctcca gggacagtcg gcagccggcc ctaggtgcag agccgatgac
180
aaggaccag gctctcagca ggtcttccaa gcagtgtggt agaaaggcag gcaggggtgtg
240
gggaagtgga gccaggccac cagtcattgat gtcaagactg agccaggaa gaaaggcagg
300
cagagagatg gggaggagag ggagcaggag gggactggcc atctctgaga cagaagcgtg
360
agtatgggt ggacttgagg gcaggagagg actgaaaggg cagaggcctg ggcgatgcag
420
ccagagaggg agatgctggt gtggggaggt ctgggcaggg atgttttagg tgatggcaga
480

```

&lt;210&gt; 5060

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5060

```

Met Ala Ser Pro Leu Leu Leu Pro Leu Leu Pro Ile Ser Leu Pro Ala
 1           5           10           15
Phe Ala Ser Trp Leu Ser Leu Asp Ile Met Thr Gly Gly Leu Ala Pro

```



ggctttggat tggacagtca aagggaagtg ggcaaaacca gctgagaacc cgggagctgg  
 1080  
 atgcatatat tctggaatca gggcctgcaa actcaaagat tggtttggg ctggtgactt  
 1140  
 ctctctgcta agtaaatcaa tgaccattca ttgagaactg atggggacc cgcgtgtggc  
 1200  
 ccaatgagtg gcagtttttt cctagccagc ttctgtggcc aaatttggag gattttccaa  
 1260  
 cctgctatgg ctggaccctt ggggtgttaa tcaactaaatt ccctttctac ctgctctctt  
 1320  
 cttcctgaaa cactcagagc tgacttcttc cttctttcta atcaacaag acaaaactcc  
 1380  
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 1560  
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 1620  
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 1680  
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 1740  
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 1800  
 gggatcaaga ccttggaagg tagggctctc caccagctct gtaagcacca gtgtgccac  
 1860  
 cttatggcct ggggaccagc gtttgacagga ggaagttaa cagtggggct gtttttcccc  
 1920  
 aaagctgtgg gtcactgac ctgtcttctc actggtcttg atcatgcagc ttgggaacca  
 1980  
 cagagacatg agactgcacc aaacagggct gatgatttag ccagaaaact aggaagggtct  
 2040  
 agcacagccc tccacacact tcccaggaag tgtttggctt ggccctgcag ttgggactaa  
 2100  
 acttatatgc acctgcaggt cttgttgggt gcaccgtgag caagtctcta ccccaaccac  
 2160  
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 2280  
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 2340  
 cattttggag cctgggatga ctgcctagcc cacttatgtg agacctgtta atgccagtgt  
 2400  
 gaaatttcca actaaatact taataaaata attacaaaaa gaaaaaaaaa tgacacattg  
 2460  
 ca  
 2462

&lt;210&gt; 5062

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5062

```

Met Ala Gly Trp Gly Leu Val Asp Val Ser Gly Ala Pro Glu Pro Trp
1      5      10      15
Arg Ile Pro His Gly Ile Pro Leu Pro Ala Leu Ser Gly Leu Cys Gly
20     25     30
Val Arg Arg Ser Pro Ser Ser Arg Phe Ser Phe Phe Pro Pro Gln Gln
35     40     45
Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
50     55     60
Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
65     70     75     80
Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
85     90     95
Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
100    105    110
Gly Val Leu Tyr His Phe Asp Gly Thr Leu Trp Ser Ala Glu Asn Ala
115    120    125
Leu Ser Trp His Ala Ser Arg Leu
130    135

```

&lt;210&gt; 5063

&lt;211&gt; 561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5063

```

gacgcaaccc cagtgtcaaa ccaggggggta agtcaaggta tccggccagg cgccggcagc
60
tgaggggggcc cagtggggtc tcgtctgtgg cccagagacg tggcggaaga aggcagtaca
120
tctcccttct tagagagaga gtggaagctt ctgagtgtgg cttgggtcgt tctgaaccat
180
ggtgacgctt ccacctgtcc actgcctgtc ttccagtttg acttgctgga aatggaccgg
240
ctggagaggc cactggttga cctgccgctc ctcttgacc cgcctccta cgtgcccgac
300
acgggtggacc tcaccgatga cgctctggcc cgaataact ggctcacctg ctttgaggag
360
gccctggacg gggtagtgaa gcgcgcagtg gcgagccagc cagactctgt ggatgcagcc
420
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480
cccttcgcct atgggaacct gaccgtgcgc agcctgctgg acaccaggga gcactgtctg
540
aacgagttca acttcccgga t
561

```

&lt;210&gt; 5064

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5064

```

Met Asp Arg Leu Glu Arg Pro Leu Val Asp Leu Pro Leu Leu Leu Asp
 1           5           10           15
Pro Pro Ser Tyr Val Pro Asp Thr Val Asp Leu Thr Asp Asp Ala Leu
      20           25           30
Ala Arg Lys Tyr Trp Leu Thr Cys Phe Glu Glu Ala Leu Asp Gly Val
 35           40           45
Val Lys Arg Ala Val Ala Ser Gln Pro Asp Ser Val Asp Ala Ala Glu
 50           55           60
Arg Ala Glu Lys Phe Arg Gln Lys Tyr Trp Asn Lys Leu Gln Thr Leu
65           70           75           80
Arg Gln Gln Pro Phe Ala Tyr Gly Thr Leu Thr Val Arg Ser Leu Leu
      85           90           95
Asp Thr Arg Glu His Cys Leu Asn Glu Phe Asn Phe Pro Asp
100           105           110

```

&lt;210&gt; 5065

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5065

```

attgaggacg cgcgaggagcg aatgaggacg ctgcggaagc tgatccggga tctcccagga
60
cactactatg aaacgtctaa attccttgtg ggccatctca agaccatcgc tgaccactct
120
gagaaaaaca agatggaacc ccggaacctg gccttggtct tggggccgac actggtgagg
180
acgtctgagg acaacatgac agacatggtg acccacatgc ctgaccgcta caagatcgtg
240
gagacactga tccagcactc agactggttc ttcagtgcgc aagaggacaa gggagagaga
300
attctaccac ctgtagtcca gtcaagtcca agggttcgtg ggcccccaag aaggagccgt
360
acgccccggg
370

```

&lt;210&gt; 5066

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5066

```

Ile Glu Asp Ala Arg Glu Arg Met Arg Thr Leu Arg Lys Leu Ile Arg
 1           5           10           15
Asp Leu Pro Gly His Tyr Tyr Glu Thr Leu Lys Phe Leu Val Gly His
      20           25           30
Leu Lys Thr Ile Ala Asp His Ser Glu Lys Asn Lys Met Glu Pro Arg
 35           40           45
Asn Leu Ala Leu Val Phe Gly Pro Thr Leu Val Arg Thr Ser Glu Asp
 50           55           60
Asn Met Thr Asp Met Val Thr His Met Pro Asp Arg Tyr Lys Ile Val
65           70           75           80
Glu Thr Leu Ile Gln His Ser Asp Trp Phe Phe Ser Asp Glu Glu Asp

```

	85		90		95										
Lys	Gly	Glu	Arg	Ile	Leu	Pro	Pro	Val	Val	Gln	Ser	Ser	Pro	Arg	Val
		100					105						110		
Arg	Gly	Pro	Pro	Arg	Arg	Ser	Arg	Thr	Pro	Gly					
		115					120								

&lt;210&gt; 5067

&lt;211&gt; 2023

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5067

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 60  
 gcactcttag aacaaaagat tgaagaagag atgttggtctt tgcagaatga gcgcacagaa  
 120  
 cgaatacgaa gcctgttgga acgtcaagcc agagagattg aagctttttga ctctgaaagc  
 180  
 atgagactag gtttttagtaa tatggctcctt tctaattctt cccctgaggc attcagccac  
 240  
 agctaccogg gagcttctgg ttggtcacac aaccttactg ggggtccagg acctcactgg  
 300  
 ggtcatccca tgggtggccc accacaagct tggggccatc caatgaagg tggaccccg  
 360  
 ccattggggtc acccttcagg gccaatgcaa ggggtacctc gaggtagcag tatgggagtc  
 420  
 cgcaatagcc ccaggctctt gaggcggaca gcttctgggg gacggacaga gcaggggcatg  
 480  
 agcagaagca cgagtgtcac ttcacaaata tccaatgggt cacacatgtc ttatacataa  
 540  
 cttaataatt gagagtggca attccgctgg agctgtctgc caaaagaac tgccacagaa  
 600  
 catcatcaca gcagcctcct cacttgggta ctacagtgtg gaagctgagt gcatatggta  
 660  
 tatttttatt attttttaga agcgttctgt tttgggttta ctaattggga tgcataagta  
 720  
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 900  
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 1020  
 ataagttatt actgttacac acctgcattg cctcaccagt gtattttatt gttattaaat  
 1080  
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 1140  
 tgcttctcgg ctttttggct aagatcaagt gtgaaatcc atgaacacta aaggacttca  
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 1260

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 1980  
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 2023

&lt;210&gt; 5068

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5068

Ala Glu Ala Gln His Asp Arg Glu Leu Arg Xaa Leu Glu Gln Arg Val  
 1 5 10 15  
 Ser Leu Arg Arg Ala Leu Leu Glu Gln Lys Ile Glu Glu Glu Met Leu  
 20 25 30  
 Ala Leu Gln Asn Glu Arg Thr Glu Arg Ile Arg Ser Leu Leu Glu Arg  
 35 40 45  
 Gln Ala Arg Glu Ile Glu Ala Phe Asp Ser Glu Ser Met Arg Leu Gly  
 50 55 60  
 Phe Ser Asn Met Val Leu Ser Asn Leu Ser Pro Glu Ala Phe Ser His  
 65 70 75 80  
 Ser Tyr Pro Gly Ala Ser Gly Trp Ser His Asn Pro Thr Gly Gly Pro  
 85 90 95  
 Gly Pro His Trp Gly His Pro Met Gly Gly Pro Pro Gln Ala Trp Gly  
 100 105 110  
 His Pro Met Gln Gly Gly Pro Gln Pro Trp Gly His Pro Ser Gly Pro  
 115 120 125  
 Met Gln Gly Val Pro Arg Gly Ser Ser Met Gly Val Arg Asn Ser Pro  
 130 135 140  
 Gln Ala Leu Arg Arg Thr Ala Ser Gly Gly Arg Thr Glu Gln Gly Met  
 145 150 155 160  
 Ser Arg Ser Thr Ser Val Thr Ser Gln Ile Ser Asn Gly Ser His Met

Ser Tyr Thr

165

170

175

<210> 5069

<211> 3655

<212> DNA

<213> Homo sapiens

<400> 5069

```

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60
agaaagcgca ggctaaagcc gcagggtgaag atgtccaact acgcaacga catgtggcgc
120
ggctcgccgc aggagaagga ttcccccctc acctcgcggt cgggcgggtc cagccggctg
180
tcgtcgcggt ctaggagccg ctcttttttc agaagctctc ggteccattc ccgcgtctcg
240
agccggtttt cgtccaggag tcggaggagc aagtcagggt cccgttccgc aaggcgccac
300
cagcggaagt acaggcgcta ctccgggtca tactcgcgga gccggtcgcg atcccgagc
360
cgccgttacc gagagaggcg ctacgggttc accaggagat actaccggtc tcttcgagg
420
taccggtccc ggtcccgtag caggtcgcg ctcggggaa ggctgtagtg cggaagggcg
480
tacgcgtagc cgccggggaca gcgctactac ggctttggtc gcacagtgtg cccggaggag
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720
gaaatctttt tggaggaaag agggaggaca ttacctgtat taaagtgga agcattctct
780
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900
aagttaacgt gattgggaag aacaatatca aaacacgcct tcttttagtt gacattatta
960
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1020
acctctgtaa tcccagcact tggggaggcg gaggcggagg cgggtgggtc acttgaggcc
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1200
taattatata aagaatctac agcagaaaaa cctgggtttc agaaatacat ctttgaagag
1260
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1320

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&lt;210&gt; 5070

&lt;211&gt; 255

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5070

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&lt;210&gt; 5071

&lt;211&gt; 2196

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5071

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&lt;210&gt; 5072

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5072

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			20					25					30		
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<211> 240

<212> PRT

<213> Homo sapiens

<400> 5074

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Asp	Ser	Arg	Val	Gln	Tyr	Phe	Trp	Glu	Ala	Leu	Asn	Asn	Phe	Thr	Asn
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Pro	His	Tyr	Ala	Ser	Ala	Lys	Val	Cys	Glu	Glu	Lys	Leu	Arg	Tyr	Ala
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<211> 444

<212> DNA

<213> Homo sapiens

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&lt;210&gt; 5076

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5076

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			20					25					30		
Cys	Trp	Asp	Gly	Gly	Ser	Gly	Asn	Phe	Ser	Ser	Pro	Gly	Thr	Leu	
		35				40					45				
Arg	Glu	Thr	Glu	Val	Ile	Thr	Ala	Val	Leu	Glu	Leu	Gly	Arg	Gly	Gly
	50				55					60					
Asp	Gln	Val	Thr	Ala	Asp	Gln	Lys	Ser	Leu	Asn	Ile	Asn	Ala	Met	Glu
65					70				75					80	
Arg	Glu	Leu	Ala	Leu	Ser	Leu	Arg	Val	Ala						
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&lt;210&gt; 5077

&lt;211&gt; 2352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5077

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<210> 5078

<211> 558

<212> PRT

<213> Homo sapiens

<400> 5078

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 Gln Pro Gln Pro Pro Gln Ile Gln Asn Gly Pro Met Asn Gly Cys Glu  
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 Lys Asp Ser Ser Ser Thr Asp Ser Ala Asn Glu Lys Pro Ala Leu Ile  
 115 120 125  
 Pro Arg Glu Lys Lys Ile Ser Ile Leu Glu Glu Pro Ser Lys Ala Leu  
 130 135 140  
 Arg Gly Val Thr Glu Gly Asn Arg Leu Leu Gln Gln Lys Leu Ser Leu  
 145 150 155 160  
 Asp Gly Asn Pro Lys Pro Ile His Gly Thr Thr Glu Arg Ser Asp Gly  
 165 170 175  
 Leu Gln Trp Ser Ala Glu Gln Pro Cys Asn Pro Ser Lys Pro Lys Ala  
 180 185 190  
 Lys Thr Ser Pro Val Lys Ser Asn Thr Pro Ala Ala His Leu Glu Ile  
 195 200 205  
 Lys Pro Asp Glu Leu Ala Lys Lys Arg Gly Pro Asn Ile Glu Lys Ser  
 210 215 220  
 Val Lys Asp Leu Gln Arg Cys Thr Val Ser Leu Thr Arg Tyr Arg Val  
 225 230 235 240  
 Met Ile Lys Glu Glu Val Asp Ser Ser Val Lys Lys Ile Lys Ala Ala  
 245 250 255  
 Phe Ala Glu Leu His Asn Cys Ile Ile Asp Lys Glu Val Ser Leu Met

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                260                265                270
Ala Glu Met Asp Lys Val Lys Glu Glu Ala Met Glu Ile Leu Thr Ala
      275                280                285
Arg Gln Lys Lys Ala Glu Glu Leu Lys Arg Leu Thr Asp Leu Ala Ser
      290                295                300
Gln Met Ala Glu Met Gln Leu Ala Glu Leu Arg Ala Glu Ile Lys His
305                310                315                320
Phe Val Ser Glu Arg Lys Tyr Asp Glu Glu Leu Gly Lys Ala Ala Arg
      325                330                335
Phe Ser Cys Asp Ile Glu Gln Leu Lys Ala Gln Ile Met Leu Cys Gly
      340                345                350
Glu Ile Thr His Pro Lys Asn Asn Tyr Ser Ser Arg Thr Pro Cys Ser
      355                360                365
Ser Leu Leu Pro Leu Leu Asn Ala His Ala Ala Thr Ser Gly Lys Gln
      370                375                380
Ser Asn Phe Ser Arg Lys Ser Ser Thr His Asn Lys Pro Ser Glu Gly
385                390                395                400
Lys Ala Ala Asn Pro Lys Met Val Ser Ser Leu Pro Ser Thr Ala Asp
      405                410                415
Pro Ser His Gln Thr Met Pro Ala Asn Lys Gln Asn Gly Ser Ser Asn
      420                425                430
Gln Arg Arg Arg Phe Asn Pro Gln Tyr His Asn Asn Arg Leu Asn Gly
      435                440                445
Pro Ala Lys Ser Gln Gly Ser Gly Asn Glu Ala Glu Pro Leu Gly Lys
      450                455                460
Gly Asn Ser Arg His Glu His Arg Arg Gln Pro His Asn Gly Phe Arg
465                470                475                480
Pro Lys Asn Lys Gly Gly Ala Lys Asn Gln Glu Ala Ser Leu Gly Met
      485                490                495
Lys Thr Pro Glu Ala Pro Ala His Ser Glu Lys Pro Arg Arg Arg Gln
      500                505                510
His Ala Ala Asp Thr Ser Glu Ala Arg Pro Phe Arg Gly Ser Val Gly
      515                520                525
Arg Val Ser Gln Cys Asn Leu Cys Pro Thr Arg Ile Glu Val Ser Thr
      530                535                540
Asp Ala Ala Val Leu Ser Val Pro Ala Val Thr Leu Val Ala
545                550                555

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&lt;210&gt; 5079

&lt;211&gt; 1338

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5079

```

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 1320  
 aaaaaaaaaa aaaaaaaaaa  
 1338

&lt;210&gt; 5080

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5080

Gly Ala Gly Pro Trp Glu Ala Phe Pro Asp Gly Ile Gly Arg Arg Ser  
 1 5 10 15  
 Arg Arg Ala Arg Leu Pro Gln Tyr Lys Arg Pro Pro Gly Arg Val Gly  
 20 25 30  
 Gly Gly Asp Ser Gly Arg Arg Asn Met Ala Val Ala Asp Leu Ala Leu  
 35 40 45  
 Ile Pro Asp Val Asp Ile Asp Ser Asp Gly Val Phe Lys Tyr Val Leu  
 50 55 60  
 Ile Arg Val His Ser Ala Pro Arg Ser Gly Ala Pro Ala Ala Glu Ser  
 65 70 75 80  
 Lys Glu Ile Val Arg Gly Tyr Lys Trp Ala Glu Tyr His Ala Asp Ile

85					90					95					
Tyr	Asp	Lys	Val	Ser	Gly	Asp	Met	Gln	Lys	Gln	Gly	Cys	Asp	Cys	Glu
100					105					110					
Cys	Leu	Gly	Gly	Gly	Arg	Ile	Ser	His	Gln	Ser	Gln	Asp	Lys	Lys	Ile
115					120					125					
His	Val	Tyr	Gly	Tyr	Ser	Met	Val	Ser	Arg	Ser	Pro	Val	Pro	Pro	Cys
130					135					140					
Arg	Arg	Pro	Gln	Tyr	Gln	Leu	Arg	Gly	Pro	Pro	Glu	Pro	Ala	Ala	Leu
145					150					155					
Thr	Arg	Gly	Pro	Ser											
165															

&lt;210&gt; 5081

&lt;211&gt; 561

&lt;212&gt; DNA

<213> Homo sapiens

&lt;400&gt; 5081

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120 atcttcttta agtttgatcc tcgccctggt tccaaaaacg cgtacaggta accccctcgc  
180 ctgcacatcg ctgcgccctg cagggctcctg ggtgccccag cagttctcat gccaccaag  
240 ctgctgtgtg caggaagggt tgtgggccag gacggggctg cacaggcctg gcactgccct  
300 ccaggacagg gtcactcagt gtgggatgct gtcagaatgc ctctcggggc ggggactcca  
360 gtcaatgtac aaagactgta agactcagcg acagaaggca gccacaggct catcttggca  
420 gccaacaggg atgaattcta cagccgaccc tccaagttag ctgacttctg ggggaacaac  
480 aacgagatcc tcagtgggct ggacatggag gaaggcaagg aaggaggcac atggctgggc  
540 atcagcacac gtggcaagct g  
561

&lt;210&gt; 5082

<211> 111

&lt;212&gt; PRT

<213> Homo sapiens

&lt;400&gt; 5082

Met	Pro	Pro	Lys	Leu	Leu	Cys	Ala	Gly	Arg	Cys	Val	Gly	Gln	Asp	Gly
1			5					10					15		
Ala	Ala	Gln	Ala	Trp	His	Cys	Pro	Pro	Gly	Gln	Gly	His	Ser	Val	Trp
		20						25					30		
Asp	Ala	Val	Arg	Met	Pro	Leu	Gly	Ala	Gly	Thr	Pro	Val	Asn	Val	Gln
		35					40					45			
Arg	Arg	Glu	Asp	Ser	Ala	Thr	Glu	Gly	Ser	His	Arg	Leu	Ile	Leu	Ala
		50				55					60				
Ala	Asn	Arg	Asp	Glu	Phe	Tyr	Ser	Arg	Pro	Ser	Lys	Leu	Ala	Asp	Phe

65					70					75				80
Trp	Gly	Asn	Asn	Asn	Glu	Ile	Leu	Ser	Gly	Leu	Asp	Met	Glu	Glu Gly
				85					90				95	
Lys	Glu	Gly	Gly	Thr	Trp	Leu	Gly	Ile	Ser	Thr	Arg	Gly	Lys	Leu
			100					105					110	

&lt;210&gt; 5083

&lt;211&gt; 1856

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5083

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nnggccacta ggcacgggac agagcagtcg gtgacaggac agagcagtcg gtgacgggac
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120
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180
gcagacatgg acttctcgcg gaacttattc tcccagacgc tcagcctggg cagccagaag
240
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1260

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 1320  
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 1380  
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 1680  
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 1740  
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 1800  
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 1856

<210> 5084

<211> 396

<212> PRT

<213> Homo sapiens

<400> 5084

Arg Asp Thr Val Val Gly Asp Gly Thr Glu Arg Ser Val Thr Ala Ser  
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 20 25 30  
 Asp Ser Glu Gly Gly Ala Ala Gly Gly Glu Ala Asp Met Asp Phe Leu  
 35 40 45  
 Arg Asn Leu Phe Ser Gln Thr Leu Ser Leu Gly Ser Gln Lys Glu Arg  
 50 55 60  
 Leu Leu Asp Glu Leu Thr Leu Glu Gly Val Ala Arg Tyr Met Gln Ser  
 65 70 75 80  
 Glu Arg Cys Arg Arg Val Ile Cys Leu Val Gly Ala Gly Ile Ser Thr  
 85 90 95  
 Ser Ala Gly Ile Pro Asp Phe Arg Ser Pro Ser Thr Gly Leu Tyr Asp  
 100 105 110  
 Asn Leu Glu Lys Tyr His Leu Pro Tyr Pro Glu Ala Ile Phe Glu Ile  
 115 120 125  
 Ser Tyr Phe Lys Lys His Pro Glu Pro Phe Phe Ala Leu Ala Lys Glu  
 130 135 140  
 Leu Tyr Pro Gly Gln Phe Lys Pro Thr Ile Cys His Tyr Phe Met Arg  
 145 150 155 160  
 Leu Leu Lys Asp Lys Gly Leu Leu Leu Cys Tyr Thr Gln Asn Ile  
 165 170 175  
 Asp Thr Leu Glu Arg Ile Ala Gly Leu Glu Gln Glu Asp Leu Val Glu  
 180 185 190  
 Ala His Gly Thr Phe Tyr Thr Ser His Cys Val Ser Ala Ser Cys Arg  
 195 200 205  
 His Glu Tyr Pro Leu Ser Trp Met Lys Glu Lys Ile Phe Ser Glu Val

210		215		220
Thr Pro Lys Cys Glu Asp	Cys Gln Ser Leu Val Lys	Pro Asp Ile Val		
225	230	235	240	
Phe Phe Gly Glu Ser	Leu Pro Ala Arg Phe Phe Ser Cys Met Gln Ser			
	245	250	255	
Asp Phe Leu Lys Val Asp	Leu Leu Leu Val Met Gly Thr Ser Leu Gln			
	260	265	270	
Val Gln Pro Phe Ala Ser	Leu Ile Ser Lys Ala Pro Leu Ser Thr Pro			
	275	280	285	
Arg Leu Leu Ile Asn Lys	Glu Lys Ala Gly Gln Ser Asp Pro Phe Leu			
	290	295	300	
Gly Met Ile Met Gly	Leu Gly Gly Met Asp Phe Asp Ser Lys Lys			
305	310	315	320	
Ala Tyr Arg Asp Val	Ala Trp Leu Gly Glu Cys Asp Gln Gly Cys Leu			
	325	330	335	
Ala Leu Ala Glu Leu Leu	Gly Trp Lys Lys Glu Leu Glu Asp Leu Val			
	340	345	350	
Arg Arg Glu His Ala Ser	Ile Asp Ala Gln Ser Gly Ala Gly Val Pro			
	355	360	365	
Asn Pro Ser Thr Ser	Ala Ser Pro Lys Lys Ser Pro Pro Pro Ala Lys			
	370	375	380	
Asp Glu Ala Arg Thr	Thr Glu Arg Glu Lys Pro Gln			
385	390	395		

&lt;210&gt; 5085

&lt;211&gt; 2964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5085

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 120  
 tgaaatctag cccgtccgag cgcgagtgcca acggccgcgg ccgcaccaag gcccccctcag  
 180  
 accgtgccat ggggtgacagt gatgacgagt acgatcgaga gcgcaggggac aagttcagaa  
 240  
 gagagcgcag cgactacgac cgttccccgc agagagatga aagacgtcga ggggacgatt  
 300  
 ggaatgacag agagtgggac cgtggccgtg agcgccgtag tcgggggtgaa tatcgggact  
 360  
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 420  
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 480  
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 540  
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 600  
 gcagagattg acctgggtgt gccgcgcgcc gtgatgaaga ctttcaagga gttttctcctc  
 660  
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 720

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 2964

&lt;210&gt; 5086

&lt;211&gt; 792

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5086

Met	Ser	Thr	Ala	Leu	Thr	His	Thr	Thr	Val	Ala	Met	Arg	Cys	Pro	Met
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Leu	Xaa	Gly	Gly	Gly	Gly	Pro	Thr	Tyr	Gly	Pro	Pro	Gln	Pro	Trp	Gly
		20						25					30		
His	Pro	Asp	Val	His	Ile	Met	Gln	His	His	Val	Leu	Pro	Ile	Gln	Ala
		35				40					45				
Arg	Leu	Gly	Ser	Ile	Ala	Glu	Ile	Asp	Leu	Gly	Val	Pro	Pro	Pro	Val
	50					55				60					
Met	Lys	Thr	Phe	Lys	Glu	Phe	Leu	Leu	Ser	Leu	Asp	Asp	Ser	Val	Asp
	65			70					75					80	
Glu	Thr	Glu	Ala	Val	Lys	Arg	Tyr	Asn	Asp	Tyr	Lys	Leu	Asp	Phe	Arg
			85					90					95		
Arg	Gln	Gln	Met	Gln	Asp	Phe	Phe	Leu	Ala	His	Lys	Asp	Glu	Glu	Trp
		100					105					110			
Phe	Arg	Ser	Lys	Tyr	His	Pro	Asp	Glu	Val	Gly	Lys	Arg	Arg	Gln	Glu
	115					120					125				
Ala	Arg	Gly	Ala	Leu	Gln	Asn	Arg	Leu	Arg	Val	Phe	Leu	Ser	Leu	Met
	130				135					140					
Glu	Thr	Gly	Trp	Phe	Asp	Asn	Leu	Leu	Leu	Asp	Ile	Asp	Lys	Ala	Asp
	145			150					155					160	
Ala	Ile	Val	Lys	Met	Leu	Asp	Ala	Ala	Val	Ile	Lys	Met	Glu	Gly	Gly
		165				170							175		
Thr	Glu	Asn	Asp	Leu	Arg	Ile	Leu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Gln
	180						185					190			
Ala	Gly	Lys	Pro	Gly	Glu	Pro	Ser	Lys	Lys	Glu	Glu	Gly	Arg	Ala	Gly

[illegible]

```

625          630          635          640
Pro Glu Phe Val Arg Lys His Ile Phe Asn Lys His Ala Glu Lys Ile
        645          650          655
Glu Glu Val Lys Lys Glu Val Ala Phe Phe Asn Asn Phe Leu Thr Asp
        660          665          670
Ala Lys Arg Pro Ala Leu Pro Glu Ile Lys Pro Ala Gln Pro Pro Gly
        675          680          685
Pro Ala Gln Ile Leu Pro Pro Gly Leu Thr Pro Gly Leu Pro Tyr Pro
        690          695          700
His Gln Thr Pro Gln Gly Leu Met Pro Tyr Gly Gln Pro Arg Pro Pro
705          710          715          720
Ile Leu Gly Tyr Gly Ala Gly Ala Val Arg Pro Ala Val Pro Thr Gly
        725          730          735
Gly Pro Pro Tyr Pro His Ala Pro Tyr Gly Ala Gly Arg Gly Asn Tyr
        740          745          750
Asp Ala Phe Arg Gly Gln Gly Gly Tyr Pro Gly Lys Pro Arg Asn Arg
        755          760          765
Met Val Arg Gly Asp Pro Arg Ala Ile Val Glu Tyr Arg Asp Leu Asp
        770          775          780
Ala Pro Asp Asp Val Asp Phe Phe
785          790

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&lt;210&gt; 5087

&lt;211&gt; 4949

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5087

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&lt;210&gt; 5088

&lt;211&gt; 465

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5088

Gly Ser Gly Thr Arg Pro Leu Glu Val His Pro Gly Pro Pro Arg  
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 20 25 30  
 Gln Gly Arg Ser Cys Pro Gly Thr Pro Asp Ile Ala Asp Val Ala Glu  
 35 40 45  
 Leu Arg Val Glu Leu Thr His Gly Ala Glu Thr Leu Thr Leu Trp Gln  
 50 55 60  
 Ser Thr Gly Pro Trp Xaa Pro Trp Xaa Trp Gln Glu Leu Ala Val Thr  
 65 70 75 80  
 Thr Gly Arg Ile Arg Gly Asp Phe Arg Val Thr Phe Ser Ala Thr Arg  
 85 90 95  
 Asn Ala Thr His Arg Gly Ala Val Ala Leu Asp Asp Leu Glu Phe Trp  
 100 105 110  
 Asp Cys Gly Leu Pro Thr Pro Gln Ala Asn Cys Pro Pro Gly His His

```

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His Cys Gln Asn Lys Val Cys Val Glu Pro Gln Gln Leu Cys Asp Gly
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      145              150              155              160
Arg His Ile Ala Thr Asp Phe Glu Thr Gly Leu Gly Pro Trp Asn Arg
      165              170              175
Ser Glu Gly Trp Ser Arg Asn His Arg Ala Gly Gly Pro Glu Arg Pro
      180              185              190
Ser Trp Pro Arg Arg Asp His Ser Arg Asn Ser Ala Xaa Arg Leu Val
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Phe Tyr Gln Tyr Leu Ser Gly Ser Glu Ala Gly Cys Leu Gln Leu Phe
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Leu Gln Thr Leu Gly Pro Gly Ala Pro Arg Ala Pro Val Leu Leu Arg
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      245              250              255
Ile Gln Ser Ala Tyr Pro Phe Gln Ile Leu Leu Ala Gly Gln Thr Gly
      260              265              270
Pro Gly Gly Val Val Gly Leu Asp Asp Leu Ile Leu Ser Asp His Cys
      275              280              285
Arg Pro Val Ser Glu Val Ser Thr Leu Gln Pro Leu Pro Pro Gly Pro
      290              295              300
Arg Ala Pro Ala Pro Gln Pro Leu Pro Pro Ser Ser Arg Leu Gln Asp
      305              310              315              320
Ser Cys Lys Gln Gly His Leu Ala Cys Gly Asp Leu Cys Val Pro Pro
      325              330              335
Glu Gln Leu Cys Asp Phe Glu Glu Gln Cys Ala Gly Gly Glu Asp Glu
      340              345              350
Gln Ala Cys Gly Thr Thr Asp Phe Glu Ser Pro Glu Ala Gly Gly Trp
      355              360              365
Glu Asp Ala Ser Val Gly Arg Leu Gln Trp Arg Arg Val Ser Ala Gln
      370              375              380
Glu Ser Gln Gly Ser Ser Ala Ala Ala Gly His Phe Leu Ser Leu
      385              390              395              400
Gln Arg Ala Trp Gly Gln Leu Gly Ala Glu Ala Arg Val Leu Thr Pro
      405              410              415
Leu Leu Gly Pro Ser Gly Pro Ser Cys Glu Leu His Leu Ala Tyr Tyr
      420              425              430
Leu Gln Ser Gln Pro Arg Ala Gly Phe Val Gly Leu Val Asp Leu Asp
      435              440              445
Gly Pro Asp Gln Gln Xaa Ser Trp Gly Gly Gln Arg Asp Pro Glu Gly
      450              455              460
Leu
465

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&lt;210&gt; 5089

&lt;211&gt; 793

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5089

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 793

&lt;210&gt; 5090

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5090

Xaa	Asp	His	Ile	Ser	Asp	Asp	Pro	His	Thr	Phe	Asn	His	Gln	Asn	Leu
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Thr	His	Cys	Ser	Arg	His	Gly	Ser	Gly	Pro	Asn	Ile	Ile	Leu	Thr	Gly
			20					25					30		
Asp	Ser	Ser	Pro	Gly	Phe	Ser	Lys	Glu	Ile	Ala	Ala	Ala	Leu	Ala	Gly
			35				40					45			
Val	Pro	Gly	Phe	Glu	Val	Ser	Ala	Ala	Gly	Leu	Glu	Leu	Gly	Leu	Gly
	50					55				60					
Leu	Glu	Asp	Glu	Leu	Arg	Met	Glu	Pro	Leu	Gly	Leu	Glu	Gly	Leu	Asn
65				70					75				80		
Met	Leu	Ser	Asp	Pro	Cys	Ala	Leu	Leu	Pro	Asp	Pro	Ala	Val	Glu	Glu
			85						90				95		
Ser	Phe	Arg	Ser	Asp	Arg	Leu	Gln								
			100												

&lt;210&gt; 5091

&lt;211&gt; 3150

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5091

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3150

<211> 632  
 <212> PRT  
 <213> Homo sapiens

<400> 5092

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Ser His Thr Pro Phe Pro Lys Leu Glu Leu Gly Leu Gly Pro Gln Pro
          35           40           45
Met Ala Pro Arg Glu Leu Pro Thr Cys Ser Ile Cys Leu Glu Arg Leu
 50           55           60
Arg Asp Pro Ile Ser Leu Asp Cys Gly His Asp Phe Cys Ile Arg Cys
65           70           75           80
Phe Ser Thr His Arg Leu Pro Gly Cys Glu Pro Pro Cys Cys Pro Glu
          85           90           95
Cys Arg Lys Ile Cys Lys Gln Lys Arg Gly Leu Arg Ser Leu Gly Glu
          100          105          110
Lys Met Lys Leu Leu Pro Gln Arg Pro Leu Pro Pro Ala Leu Gln Glu
          115          120          125
Thr Cys Pro Val Arg Ala Glu Pro Leu Leu Leu Val Arg Ile Asn Ala
          130          135          140
Ser Gly Gly Leu Ile Leu Arg Met Gly Ala Ile Asn Arg Cys Leu Lys
145          150          155          160
His Pro Leu Ala Arg Asp Thr Pro Val Cys Leu Leu Ala Val Leu Gly
          165          170          175
Glu Gln His Ser Gly Lys Ser Phe Leu Leu Asn His Leu Leu Gln Gly
          180          185          190
Leu Pro Gly Leu Glu Ser Gly Glu Gly Arg Pro Arg Gly Gly Glu
          195          200          205
Ala Ser Leu Gln Gly Cys Arg Trp Gly Ala Asn Gly Leu Ala Gly Gly
          210          215          220
Ile Trp Met Trp Ser His Pro Phe Leu Leu Gly Lys Glu Gly Lys Lys
225          230          235          240
Val Ala Val Phe Leu Val Asp Thr Gly Asp Ala Met Ser Pro Glu Leu
          245          250          255
Ser Arg Glu Thr Arg Ile Lys Leu Cys Ala Leu Thr Thr Met Leu Ser
          260          265          270
Ser Tyr Gln Ile Leu Ser Thr Ser Gln Glu Leu Lys Asp Thr Asp Leu
          275          280          285
Asp Tyr Leu Glu Met Phe Val His Val Ala Glu Val Met Gly Lys His
          290          295          300
Tyr Gly Met Val Pro Ile Gln His Leu Asp Leu Leu Val Arg Asp Ser
305          310          315          320
Ser His Pro Asn Lys Ala Gly Gln Gly His Val Gly Asn Ile Phe Gln
          325          330          335
Arg Leu Ser Gly Arg Tyr Pro Lys Val Gln Glu Leu Leu Gln Gly Lys
          340          345          350
Arg Ala Arg Cys Cys Leu Leu Pro Ala Pro Gly Arg Arg Arg Met Asn
          355          360          365
Gln Gly His Ala Ser Pro Gly Gly Asp Thr Asp Asp Asp Phe Arg His
          370          375          380
Leu Leu Gly Ala Tyr Val Ser Asp Val Leu Ser Ala Ala Pro Gln His

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Arg Gly Asp Arg Arg Leu Leu Thr Gly Gln Gln Leu Ala Gln Glu Ile
          420          425          430
Lys Asn Leu Ser Gly Trp Met Gly Arg Thr Gly Pro Gly Phe Thr Ser
          435          440          445
Pro Asp Glu Met Ala Ala Gln Leu His Asp Leu Arg Lys Val Glu Ala
          450          455          460
Ala Lys Arg Glu Phe Glu Glu Tyr Val Arg Gln Gln Asp Val Ala Thr
          465          470          475          480
Lys Arg Ile Phe Ser Ala Leu Arg Val Leu Pro Asp Thr Met Arg Asn
          485          490          495
Leu Leu Ser Thr Gln Lys Asp Ala Ile Leu Ala Arg His Gly Val Ala
          500          505          510
Leu Leu Cys Lys Gly Arg Asp Gln Thr Leu Glu Ala Leu Glu Ala Glu
          515          520          525
Leu Gln Ala Thr Ala Lys Ala Phe Met Asp Ser Tyr Thr Met Arg Phe
          530          535          540
Cys Gly His Leu Ala Ala Val Gly Gly Ala Val Gly Ala Gly Leu Met
          545          550          555          560
Gly Leu Ala Gly Gly Val Val Gly Ala Gly Met Ala Ala Ala Ala Leu
          565          570          575
Ala Ala Glu Ala Gly Met Val Ala Ala Gly Ala Ala Val Gly Ala Thr
          580          585          590
Gly Ala Ala Val Val Gly Gly Gly Val Gly Ala Gly Leu Ala Ala Thr
          595          600          605
Val Gly Cys Met Glu Lys Glu Glu Asp Glu Arg Leu Leu Glu Gly Asp
          610          615          620
Arg Glu Pro Leu Leu Gln Glu
          625          630

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&lt;210&gt; 5093

&lt;211&gt; 1662

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5093

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120
gactgaagct tcaagatggc tgaccaggac cctgcgggca tcagccccct ccagcaaatg
180
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480

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&lt;210&gt; 5094

&lt;211&gt; 365

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5094

Met Ala Asp Gln Asp Pro Ala Gly Ile Ser Pro Leu Gln Gln Met Val  
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 Ala Ser Gly Thr Gly Ala Val Val Thr Ser Leu Phe Met Thr Pro Leu  
 20 25 30  
 Asp Val Val Lys Val Arg Leu Gln Ser Gln Arg Pro Ser Met Ala Ser  
 35 40 45  
 Glu Leu Met Pro Ser Ser Arg Leu Trp Ser Leu Ser Tyr Thr Lys Leu

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      50              55              60
Pro Ser Leu Ser Tyr Thr Lys Trp Lys Cys Leu Tyr Cys Asn Gly
65              70              75              80
Val Leu Glu Pro Leu Tyr Leu Cys Pro Asn Gly Ala Arg Cys Ala Thr
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Trp Phe Gln Asp Pro Thr Arg Phe Thr Gly Thr Met Asp Ala Phe Val
      100              105              110
Lys Ile Val Arg His Glu Gly Thr Arg Thr Leu Trp Ser Gly Leu Pro
      115              120              125
Ala Thr Leu Val Met Thr Val Pro Ala Thr Ala Ile Tyr Phe Thr Ala
      130              135              140
Tyr Asp Gln Leu Lys Ala Phe Leu Cys Gly Arg Ala Leu Thr Ser Asp
145              150              155              160
Leu Tyr Ala Pro Met Val Ala Gly Ala Leu Ala Arg Leu Gly Thr Val
      165              170              175
Thr Val Ile Ser Pro Leu Glu Leu Met Arg Thr Lys Leu Gln Ala Gln
      180              185              190
His Val Ser Tyr Arg Glu Leu Gly Ala Cys Val Arg Thr Ala Val Ala
      195              200              205
Gln Gly Gly Trp Arg Ser Leu Trp Leu Gly Trp Gly Pro Thr Ala Leu
      210              215              220
Arg Asp Val Pro Phe Ser Val His Pro Pro Pro Gln Ala Leu Tyr Trp
225              230              235              240
Phe Asn Tyr Glu Leu Val Lys Ser Trp Leu Asn Gly Leu Arg Pro Lys
      245              250              255
Asp Gln Thr Ser Val Gly Met Ser Phe Val Ala Gly Gly Ile Ser Gly
      260              265              270
Thr Val Ala Val Leu Thr Leu Pro Phe Asp Val Val Lys Thr Gln
      275              280              285
Arg Gln Val Ala Leu Gly Ala Met Glu Ala Val Arg Val Asn Pro Leu
290              295              300
His Val Asp Ser Thr Trp Leu Leu Leu Arg Arg Ile Arg Ala Glu Ser
305              310              315              320
Gly Thr Lys Gly Leu Phe Ala Gly Phe Leu Pro Arg Ile Ile Lys Ala
      325              330              335
Ala Pro Ser Cys Ala Ile Met Ile Ser Thr Tyr Glu Phe Gly Lys Ser
      340              345              350
Phe Phe Gln Arg Leu Asn Gln Asp Arg Leu Leu Gly Gly
355              360              365

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&lt;210&gt; 5095

&lt;211&gt; 2230

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5095

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120
tttcttgacg tctctaggaa ccttcaggcc acggatcagc agaacataca cgaacaaggg
180
aaaaaaaaatc ctcttaattt tactgatggc cccccgtctc tcaggtggtc tgagagtggc
240

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360  
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 2230

<210> 5096

<211> 153

<212> PRT

<213> Homo sapiens

<400> 5096

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		20					25					30		
Gly	Ile	Pro	Glu	Ala	Val	Glu	Gln	His	Leu	Tyr	Glu	Met	Leu	Pro
		35					40					45		
Gln	Gln	His	Phe	Pro	Val	Gly	Thr	Ala	Pro	Gly	Asn	Pro	Val	Ser
		50					55				60			
Glu	Gln	Gly	Gly	Arg	Thr	His	Pro	Ser	Leu	Ile	Arg	Ile	Trp	Ala
65					70					75				80
Arg	Ala	Gln	Gln	Gly	Arg	Leu	Leu	Arg	Leu	Pro	Thr	Ser	Gln	His
				85						90				95
Leu	Ser	Gly	Leu	Asn	Pro	Ser	Val	Leu	Phe	Pro	Ser	Trp	Leu	Ile
			100					105					110	
Arg	Pro	Phe	Ala	Gly	Thr	His	Cys	Phe	Asn	Leu	Thr	Leu	Pro	Pro
		115					120					125		
Ala	Thr	Leu	Leu	His	Thr	Pro	Leu	Arg	Ser	Ala	Ser	Leu	Pro	Cys
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<210> 5097

<211> 3074

<212> DNA

<213> Homo sapiens

<400> 5097

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 180

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&lt;210&gt; 5098

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5098

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 Gly Val Phe Ala Ile Met Leu Pro Thr Lys Ser Lys Glu Cys Trp Phe



&lt;400&gt; 5100

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 Cys Asp Glu Ala Gly Thr Pro Val Gly Leu Gly Leu Leu Glu Leu  
 20 25 30  
 Gly Pro Ser Ala Arg Pro Pro Pro Thr Pro Thr Trp Thr Gly Pro Gly  
 35 40 45  
 Leu Gly Thr Leu Ser Cys Val Lys Glu Asn Lys Gly Lys Glu Thr Ser  
 50 55 60  
 Leu Cys Ala Pro Ser Leu Pro Asn Lys His Glu Ser Asp Val Leu Gln  
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&lt;210&gt; 5101

&lt;211&gt; 1711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5101

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 1711

&lt;210&gt; 5102

&lt;211&gt; 436

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5102

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 20 25 30  
 Pro Thr Ala Val Thr Ala Pro His Ser Ser Trp Asp Thr Tyr Tyr  
 35 40 45  
 Gln Pro Arg Ala Leu Glu Lys His Ala Asp Ser Ile Leu Ala Leu Ala  
 50 55 60  
 Ser Val Phe Trp Ser Ile Ser Tyr Tyr Ser Ser Pro Phe Ala Phe Phe  
 65 70 75 80  
 Tyr Leu Tyr Arg Lys Gly Tyr Leu Ser Leu Ser Lys Val Val Pro Phe  
 85 90 95  
 Ser His Tyr Ala Gly Thr Leu Leu Leu Leu Ala Gly Val Ala Cys  
 100 105 110  
 Leu Arg Gly Ile Gly Arg Trp Thr Asn Pro Gln Tyr Arg Gln Phe Ile  
 115 120 125  
 Thr Ile Leu Glu Ala Thr His Arg Asn Gln Ser Ser Glu Asn Lys Arg  
 130 135 140  
 Gln Leu Ala Asn Tyr Asn Phe Asp Phe Arg Ser Trp Pro Val Asp Phe  
 145 150 155 160  
 His Trp Glu Glu Pro Ser Ser Arg Lys Glu Ser Arg Gly Gly Pro Ser

```

165      170      175
Arg Arg Gly Val Ala Leu Leu Arg Pro Glu Pro Leu His Arg Gly Thr
180      185      190
Ala Asp Thr Leu Leu Asn Arg Val Lys Lys Leu Pro Cys Gln Ile Thr
195      200      205
Ser Tyr Leu Val Ala His Thr Leu Gly Arg Arg Met Leu Tyr Pro Gly
210      215      220
Ser Val Tyr Leu Leu Gln Lys Ala Leu Met Pro Ala Leu Leu Gln Gly
225      230      235      240
Gln Ala Arg Leu Val Glu Glu Cys Asn Gly Arg Arg Ala Lys Leu Leu
245      250      255
Ala Cys Asp Gly Asn Glu Ile Asp Thr Met Phe Val Asp Arg Arg Gly
260      265      270
Thr Ala Glu Pro Gln Gly Gln Lys Leu Val Ile Cys Cys Glu Gly Asn
275      280      285
Ala Gly Phe Tyr Glu Val Gly Cys Val Ser Thr Pro Leu Glu Ala Gly
290      295      300
Tyr Ser Val Leu Gly Trp Asn His Pro Gly Phe Ala Gly Ser Thr Gly
305      310      315      320
Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val Val Gln
325      330      335
Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Val Ile Tyr
340      345      350
Ala Trp Ser Ile Gly Gly Phe Thr Ala Thr Trp Ala Ala Met Ser Tyr
355      360      365
Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp Leu Val
370      375      380
Pro Leu Ala Leu Lys Val Met Pro Asp Ser Trp Arg Gly Leu Val Thr
385      390      395      400
Arg Thr Val Arg Gln His Leu Asn Leu Asn Ala Glu Gln Leu Cys
405      410      415
Arg Tyr Gln Gly Pro Val Leu Leu Ile Arg Arg Thr Lys Asp Glu Ile
420      425      430
Ile Thr Thr Thr
435

```

&lt;210&gt; 5103

&lt;211&gt; 1982

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5103

```

ttttttttt ttgacacaat tcagctttat ttttacttaa ttataacaat ttttaaaaaac
60
tccatgactt tgtgctatct ctaatattta aataaaaaaac atttcaaat ttgcacaaat
120
aatttaggcc aatacataac tagatttgaa taaagtcaga tgaagcaata attcctcctc
180
tgtgtttgaa aggaatgagt gtggttacaa agtcacagga tgaagtcctg ggaatctgggg
240
tgggagaagg ggtggatcaa gaatgacttg ggtttgtcac tccttagcag gctgagggcg
300
tgacacagca gctcgggtgc ggagaggtct attctagttt ctaacactcc aatgctaact
360

```

ttttggatgt atttccttct agcatgtaga aagggtcttt cttggctgcc aggaagtagg  
420  
gagcagggat gtggcatggt gatgatctga ggacagccag gcatatgctc agacactttg  
480  
gaaaactggg gagggggaac agggagacag aatcttcate ttcttctttt tgtgaactgg  
540  
ggaggagggt gcttgggtgac attttcctga gtataaagaa ggaatacagg tttgaaagggt  
600  
ttgttaattgt atatgaaac aggtattgaa aaccaatact gggggaaaaa aggcattgta  
660  
aacacttcta tttaaaatga agatttctgg aacaactata ctatatagtg gtatcacaag  
720  
tcctttagctg gtaagatcta gcactgaaac aactcttaat ttttaacttg tgaggggtct  
780  
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840  
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900  
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960  
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1080  
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1140  
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1200  
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1260  
cttgccaaga catcctcctt tgcacttggt tcctcaagag ttgctaggtc attttttttg  
1320  
cctgtggcca gcagcctctt taaaacaac aaaggaccta atgtcaaagt cactctcagg  
1380  
tgtttgccct gccagctcag gccttctccg cacaccgcac cccgaaggag cacggaggcc  
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1560  
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1620  
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1680  
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1740  
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1800  
tctattgctt tcctctccag ctctctgatc tcttccatcg ctggggcggt tcttgatcc  
1860  
tcaggtgggt ctggcggtatc gggggctctg tcccatagcg cgaggcgcgg aggcgaagca  
1920  
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1980

gg  
1982

<210> 5104

<211> 167

<212> PRT

<213> Homo sapiens

<400> 5104

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Met Phe Ile Leu Lys His Thr Ser Lys Gln Asp Lys Gln Gln Tyr Val
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Ser Leu Leu His Cys Arg Ser Ser Leu Asn Leu Pro Arg His Pro Pro
      20           25           30
Leu His Leu Phe Pro Gln Glu Leu Leu Gly His Phe Phe Cys Leu Trp
  35           40           45
Pro Ala Ala Ser Leu Lys Thr Thr Lys Asp Leu Met Ser Lys Ser Leu
  50           55           60
Ser Gly Val Cys Pro Ala Ser Ser Gly Leu Leu Arg Thr Pro His Pro
  65           70           75           80
Glu Gly Ala Arg Arg Pro Ala Gly Leu Ala Gly Pro Gly Ser Ser Leu
      85           90           95
Thr Ala Gly Trp Thr Ala Phe Arg Thr Cys Pro Gly Cys Ser Ala Phe
  100           105           110
Val Ala Gly Ser Asn Trp Arg Asn Leu Glu Arg Gly Ser Cys Ala Cys
  115           120           125
Lys Asp Gly Phe Cys Val Ser Ser Gly Phe Leu Leu Ser Gly Pro Gly
  130           135           140
Ser Ser Leu Val Pro Tyr Arg Pro Leu Phe Val His Gly Leu Ala Leu
  145           150           155           160
Tyr Glu Arg Ala Met Cys Phe
      165
```

<210> 5105

<211> 1359

<212> DNA

<213> Homo sapiens

<400> 5105

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agtgccaatg agtgcattgg ttgggagttg ttttgtgtgc ccccgcaaaa gagtgtgggg
  120
tccagttccc ccacaccca gcaagtgga caagaccccc cagaggtggt tctctctgtt
  180
ctggcttggt gcagggtcgg agggcagccc tgagtgtctg ccatccgctc aactcagtg
  240
tttcttttc cgcagacct cgcgacctgt gtcagcagag ccgacctgca ccaccatgtg
  300
catcatcttc ttttaagttg atcctcgccc tgtttccaaa aacgcgtaca ggctcatctt
  360
ggcagccaac agggatgaat tctacagccg accctccaag ttagctgact tctgggggaa
  420
caacaacgag atcctcagtg ggctggacat ggaggaaggc aaggaaggag gcatatggct
  480
```

gggcatcagc acacgtggca agctggcagc actcaccaac tacctgcagc cgcagctgga  
 540  
 ctggcaggcc cgagggcgag cacagcaaag ggagacgtca tttgctacta tgggaaccga  
 600  
 ggggagcctg atcctatcgt tttgacgccc ggacgtacg ggctgagcaa cgcgctgctg  
 660  
 gagactccct ggaggaagct gtgctttggg aagcagctct tcctggaggc tgtggaacgg  
 720  
 agccaggcgc tgcccagga tggctcatc gccagcctcc tggatgtgct caacaatgaa  
 780  
 gaggcgcagc tgccagaccc ggccatcgag gaccagggtg gggagtacgt gcagcccatg  
 840  
 ctgagcaagt acgcggctgt gtgcgtgcgc tgccctggct acggcaccag aaccaactac  
 900  
 atcatcctgg tagatgcgga cggccacgtg accttcaactg agcgtagcat gatggacaag  
 960  
 gacctctccc actgggagac cagaacctat gagttcacac tgcagagcta accccacctc  
 1020  
 tgggcctggc cagtgggctc ctggggggcc ctgccttgag gggcactgtg gacaggaaac  
 1080  
 cttcctttgc catactgcat tgcactgccc gtggcttggc cagcatcccc cggatcaggg  
 1140  
 cctgtgtggt tgcggtgttac ccatctgtgt ccccatgccc agttcagggt ctgcctttat  
 1200  
 gccagttagg agcagcagag tctgatacta ggtctaggac cggccagagt ataccatgaa  
 1260  
 catgtggata gacctgagcc cactcttgca catgtacaca ggcaactcaca tggcacacac  
 1320  
 atacactcct gcgtgtgcac aagcacacac atgccaggc  
 1359

&lt;210&gt; 5106

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5106

Met Ala Gly His Gln His Thr Trp Gln Ala Gly Ser Thr His Gln Leu  
 1 5 10 15  
 Pro Ala Ala Ala Ala Gly Leu Ala Gly Pro Arg Ala Ser Thr Ala Lys  
 20 25 30  
 Gly Asp Val Ile Cys Tyr Tyr Gly Asn Arg Gly Glu Pro Asp Pro Ile  
 35 40 45  
 Val Leu Thr Pro Gly Thr Tyr Gly Leu Ser Asn Ala Leu Leu Glu Thr  
 50 55 60  
 Pro Trp Arg Lys Leu Cys Phe Gly Lys Gln Leu Phe Leu Glu Ala Val  
 65 70 75 80  
 Glu Arg Ser Gln Ala Leu Pro Lys Asp Val Leu Ile Ala Ser Leu Leu  
 85 90 95  
 Asp Val Leu Asn Asn Glu Glu Ala Gln Leu Pro Asp Pro Ala Ile Glu  
 100 105 110  
 Asp Gln Gly Gly Glu Tyr Val Gln Pro Met Leu Ser Lys Tyr Ala Ala  
 115 120 125  
 Val Cys Val Arg Cys Pro Gly Tyr Gly Thr Arg Thr Asn Thr Ile Ile

130		135		140
Leu Val Asp Ala Asp Gly His Val Thr Phe Thr Glu Arg Ser Met Met				
145		150		155
Asp Lys Asp Leu Ser His Trp Glu Thr Arg Thr Tyr Glu Phe Thr Leu				
	165		170	175
Gln Ser				

&lt;210&gt; 5107

&lt;211&gt; 1207

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5107

```

ngggccccgc ggattctccg gctgaggggc agtccagagt ctgcatccag gtcactgacc
60
agtctctgcag cccgcaggct ctgctgtgccc tctttggcgt attcctcttg ctactcccc
120
acaggggatga ccaccacctg gaacggggac agccacagtg gccatttccc cccgcagctt
180
tctgccagca ctccaacag tctttccaca gaaccgagca ctgctcggtyg aatgaggact
240
ggacgctcca gggcacccgc cccagtttgt atttatttat ttatttattt atttagagac
300
agagtctcgc tctgtgcnc taggggggtg cagtggcgca atctcagctc actgcaacct
360
ccacctcccg ggttaacagg attctcctgc ctacgcctcc tgagtagctg ggattacagg
420
cgtgtgccac catgcccgcc taatttttgt atttttagta gagacagggt ttcaccgtgt
480
tagccagggt ggtcttgatc tctgacctc atgacccgct cgccctcagcc tcccagagtg
540
ctgggattac aggcgatgag cactgcgcct ggcccaattt attttttttt gtatgttcat
600
tctcttcaca tccaaacagc tacagcttcc ctcttttgtt ggggtcccca aaccaagtct
660
cttttcagga gagcagacat gtgcctccac acagtcttga agttctgggg gctccacatt
720
gtcagctggg ttgggtcttc ccatgtgagg gaggtgatg gcactcgcag gtttttgctt
780
catctatgta caaaggctca gaaaatttct tcggcatttg ggaccctcgt gttctgtage
840
tccaccagtc gctgcacagc ctacaggcaag tccactccc caaggcgacg attatctcga
900
gtccgaatgt tcaactgttct cttactttgc tctttttggc caaccacaaa ctgaaaattg
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1020
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1080
tgctcactcc ccacagggat gaccaccacc tggaacgggg acagccacag tggcccttta
1140
tactggagggt caaatctcag gggcggttgg aagtcaagct gaattgtccc aactgatgt
1200

```

ggccggc

1207

&lt;210&gt; 5108

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5108

```

Met Arg Thr Gly Arg Ser Arg Ala Pro Ala Pro Val Cys Ile Tyr Leu
 1           5           10           15
Phe Ile Tyr Leu Phe Arg Asp Arg Val Ser Leu Cys Arg Xaa Arg Gly
      20           25           30
Val Gln Trp Arg Asn Leu Ser Ser Leu Gln Pro Pro Pro Gly Phe
      35           40           45
Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg Arg
      50           55           60
Val Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Arg Val
      65           70           75           80
Ser Pro Cys

```

&lt;210&gt; 5109

&lt;211&gt; 651

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5109

```

nnggcgcgtt ccgtgcaaaa gctcggggac gctctgctgg agaagattcg ggagcccgt
60
ctgcagnatg cgagtgaggc ttttgaatca gctgtgcaag agaatatcag cattaatggg
120
caagcatggc aggaagcttc agataattgt tttatggatt ctgacatcaa agtacttgaa
180
gatcagtttg atgaaatcat agtagatata gccacaaaaa gtaagcagta tcccagaaa
240
atcctggaat gtgtcatcaa aaccataaaa gcaaaaacaag aaattctgaa gcagtaccac
300
cctgttgtag atccactgga cctaaaaaat gaccctgac cagttctcaa cggaatgct
360
ttcaactttt cccattcaa catgatgttg gctgtggatt tgcataatat ggtttttatt
420
acttcggccc ctcatatgga aaatttgaaa tgcagagggg aaacagtagc aaaggagatc
480
agtgaagcca tgaagtctt gcctgcatta attgaacaag gagagggatt ttcccaagtt
540
ctcaggatgc agcctgttat ccacctccag aggattcacc aagaagtctt ttccagttgt
600
cataggaaac cagatgctaa acctgagaac ttataaac agatagaaac c
651

```

&lt;210&gt; 5110

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5110

```

Leu Leu Glu Lys Ile Arg Glu Pro Ala Leu Gln Xaa Ala Gln Trp Thr
 1           5           10           15
Phe Glu Ser Ala Val Gln Glu Asn Ile Ser Ile Asn Gly Gln Ala Trp
      20           25           30
Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu
      35           40           45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
      50           55           60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
      65           70           75           80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
      85           90           95
Leu Lys Tyr Asp Pro Asp Pro Val Leu Asn Gly Asn Ala Phe Asn Phe
      100          105          110
Ser Pro Phe Asn Met Met Leu Ala Val Asp Leu Ser Tyr Met Val Phe
      115          120          125
Ile Thr Ser Ala Pro His Met Glu Asn Leu Lys Cys Arg Gly Glu Thr
      130          135          140
Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu Pro Ala Leu Ile
      145          150          155          160
Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met Gln Pro Val Ile
      165          170          175
His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser Cys His Arg Lys
      180          185          190
Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile Glu Thr
      195          200          205

```

&lt;210&gt; 5111

&lt;211&gt; 2247

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5111

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nccccgcgcg ccgcctcagg ctctcaccgc gccgcgcgcg ccgcgcgagg cggggacatg
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caaatgaacc aacggtctcc gcagcgcgcg gccgcgcagg cgcaagccgc ccgcgagttc
120
tggtgcgcag gcgcgggccc ccgcggcccg gctctcttgc gcaagcgcgc tgtccgcttc
180
ttctggggcg acgctctgga ggcaaaacat ttccctgctg ggggcggcga ccaccgtgag
240
cgtcccgcaa ggggcggcaa agacgcctcc gtcgcgcacg aggtggcctc gttggcttta
300
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360
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420
tgggtgacaa ccgcgcgcgc cacctttccc cactgtggcg cgaagaccgc ctcaggagca
480
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540

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600  
gcagtgaag aggccgtgga gcagtttgaa tcgcaagggg ttgatctgag caacattgta  
660  
aagacggcac ctaaaagtctc tgcagacgga tcccaggagc ccacacatga catcctgcag  
720  
atgctcagt acctccagga gtctgtggcc agctctcgcc ccaggagggt gtcagcatac  
780  
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960  
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1140  
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1860  
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1920  
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1980  
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2040  
tccccctcac aatgagaagt gttttctggc aggccctagg taaagggctg ggggagggg  
2100  
gagccttgta gggaggcctc tacacagaag aaagcagccc ccatgtccca gccacttctg  
2160

gggtccacgcc agcagcacgg atgttactgt cctgtctcctt cccccagccc cagcgcctac  
 2220  
 cagagggggc aaagggcacg tcccatc  
 2247

<210> 5112

<211> 581

<212> PRT

<213> Homo sapiens

<400> 5112

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									25					30		
Leu	Pro	Trp	Phe	35	Ala	Val	Val	Leu	Gly	Tyr	Arg	Glu	Arg	Pro	Arg	Val
								40					45			
Ser	Gly	Arg	Pro	50	Ser	Leu	Gly	Ala	Pro	Gln	Arg	Leu	Arg	Ala	Tyr	Gly
							55					60				
Gly	Arg	Lys	Gly	65	Leu	Glu	Ala	Ala	Pro	Trp	Val	Thr	Thr	Ala	Arg	Pro
						70				75					80	
Thr	Phe	Pro	His	85	Val	Ala	Ala	Lys	Thr	Gly	Ser	Gly	Ala	Ser	Ile	Gly
										90					95	
Cys	Thr	Pro	Thr	100	Ser	Thr	Gln	Ala	Lys	Met	Val	Ser	Lys	Arg	Ile	Ala
									105					110		
Gln	Glu	Thr	Phe	115	Asp	Ala	Ala	Val	Arg	Glu	Asn	Ile	Glu	Glu	Phe	Ala
								120					125			
Met	Gly	Pro	Glu	130	Glu	Ala	Val	Lys	Glu	Ala	Val	Glu	Gln	Phe	Glu	Ser
							135					140				
Gln	Gly	Val	Asp	145	Leu	Ser	Asn	Ile	Val	Lys	Thr	Ala	Pro	Lys	Val	Ser
						150					155				160	
Ala	Asp	Gly	Ser	165	Gln	Glu	Pro	Thr	His	Asp	Ile	Leu	Gln	Met	Leu	Ser
										170					175	
Asp	Leu	Gln	Glu	180	Ser	Val	Ala	Ser	Ser	Arg	Pro	Gln	Glu	Val	Ser	Ala
									185					190		
Tyr	Leu	Thr	Arg	195	Phe	Cys	Asp	Gln	Cys	Lys	Gln	Asp	Lys	Ala	Cys	Arg
								200					205			
Phe	Leu	Ala	Ala	210	Gln	Lys	Gly	Ala	Tyr	Pro	Ile	Ile	Phe	Thr	Ala	Arg
							215					220				
Lys	Leu	Ala	Thr	225	Ala	Gly	Asp	Gln	Gly	Leu	Leu	Leu	Gln	Ser	Leu	Asn
						230					235				240	
Ala	Leu	Ser	Val	245	Leu	Thr	Asp	Gly	Gln	Pro	Asp	Leu	Leu	Asp	Ala	Gln
										250					255	
Gly	Leu	Gln	Leu	260	Val	Ala	Thr	Leu	Thr	Gln	Asn	Ala	Asp	Glu	Ala	
								265					270			
Asp	Leu	Thr	Cys	275	Ser	Gly	Ile	Arg	Cys	Val	Arg	His	Ala	Cys	Leu	Lys
								280					285			
His	Glu	Gln	Asn	290	Arg	Gln	Asp	Leu	Val	Lys	Ala	Gly	Val	Leu	Pro	Leu
							295					300				
Leu	Thr	Gly	Ala	305	Ile	Thr	His	His	Gly	His	His	Thr	Asp	Val	Val	Arg
							310				315				320	
Glu	Ala	Cys	Trp	325	Ala	Leu	Arg	Val	Met	Thr	Phe	Asp	Asp	Asp	Ile	Arg
										330					335	
Val	Pro	Phe	Gly		His	Ala	His	Asn	His	Ala	Lys	Met	Ile	Val	Gln	Glu

340 345 350  
 Asn Lys Gly Leu Lys Val Leu Ile Glu Ala Thr Lys Ala Phe Leu Asp  
 355 360 365  
 Asn Pro Gly Ile Leu Ser Glu Leu Cys Gly Thr Leu Ser Arg Leu Ala  
 370 375 380  
 Ile Arg Asn Glu Phe Cys Gln Glu Val Val Asp Leu Gly Gly Leu Ser  
 385 390 395 400  
 Ile Leu Val Ser Leu Leu Ala Asp Cys Asn Asp His Gln Met Arg Asp  
 405 410 415  
 Gln Ser Gly Val Gln Glu Leu Val Lys Gln Val Leu Ser Thr Leu Arg  
 420 425 430  
 Ala Ile Ala Gly Asn Asp Asp Val Lys Asp Ala Ile Val Arg Ala Gly  
 435 440 445  
 Gly Thr Glu Ser Ile Val Ala Ala Met Thr Gln His Leu Thr Ser Pro  
 450 455 460  
 Gln Val Trp Glu Gln Ser Cys Ala Ala Leu Cys Phe Leu Ala Leu Arg  
 465 470 475 480  
 Lys Pro Asp Asn Ser Arg Ile Ile Val Glu Gly Gly Gly Ala Val Ala  
 485 490 495  
 Ala Leu Gln Ala Met Lys Ala His Pro Gln Lys Ala Gly Val Gln Lys  
 500 505 510  
 Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe  
 515 520 525  
 Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala  
 530 535 540  
 Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg  
 545 550 555 560  
 Asp Leu Gly Cys His Val Glu Leu Arg Glu Leu Trp Thr Gly Gln Arg  
 565 570 575  
 Gly Asn Leu Ala Pro  
 580

&lt;210&gt; 5113

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5113

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 ggacacctga cccgctgctt gttctgctct cctttaaact ccatgcacct gacacctgta  
 120  
 attggcacgc agcgcgagc ctggcacctg cagtgtagac acactggcca ccgctcagtg  
 180  
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 240  
 gattggagca agagattttt ttttccaagt aaagaacaat ttatgttctt aaatactttt  
 300  
 tttccttgac atgatgaagt tgagcaaggt ggctatagaa ctttttttct taattttatt  
 360  
 gcccaagtaa tgttctttac aaagtaggga aatacagata cataaaaaga agactgcca  
 420  
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 472

<210> 5114  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 5114  
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 Ser Pro Gly Thr Leu Thr Arg Cys Leu Phe Cys Ser Pro Leu Asn Ser  
 20 25 30  
 Met His Leu Thr Pro Val Ile Gly Thr Gln Arg Gly Ala Trp His Leu  
 35 40 45  
 Gln Cys Arg His Thr Gly His Arg Ser Val Gln Glu Gly Pro Phe Ala  
 50 55 60  
 Asn Val His Ser Ser Leu Cys Leu Phe Ser Tyr Ala Phe Leu Asp Trp  
 65 70 75 80  
 Ser Lys Arg Phe Phe Phe Pro Ser Lys Glu Gln Phe Met Phe Leu Asn  
 85 90 95  
 Thr Phe Phe Pro  
 100

<210> 5115  
 <211> 1003  
 <212> DNA  
 <213> Homo sapiens

<400> 5115  
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 120  
 tccaaagcct gcctggggat ttgtgccaa gccagccca ggagggttag agaaagcaaa  
 180  
 ggtgtctacc agccgccgcc atcccagaag gaaagcctct tcccatgagt gcctgtgggt  
 240  
 gggcggtag ctcaacaccc acaaaggcca gaaggcctgg gggcagtag gtgatggtag  
 300  
 gggcatggga agcagatgct gctgaggggt ggtggaggga gaaatggaga cccagcaccc  
 360  
 agcaggggga gccaggtgac agcaggggaa gcagatggca gggccccagg cagtccagga  
 420  
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 480  
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 540  
 agagagcagc tctgtctcag catcatgcag ttcctcagct gggctcatagc tgtacatggg  
 600  
 gagcaggtgc atgcgcagcc ggtccaccgg ctttttcttc tgtacatata ttaccacagc  
 660  
 caccaccacc ccgaccagggt tgatgaggaa gaaggggccc aacacatagc ccaccatgga  
 720  
 gtcgctgtgt gcctgggggg cattgggcac agtgggtgta ctcatgacat cagcagccgg  
 780

agggtcgggt ggtcagcatg ggcagtggcg cttcgggagg gcgcctccac tgggctcccc  
 840  
 agtcgtatgc tcatcgcccc aggtcaaggg ggcagtccag ggtggggagg gcgtcaggcc  
 900  
 gctgctagga tgcgggccag caacagcgga ncaggagggtg gttcccacgg cgctgggnag  
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 1003

<210> 5116

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5116

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 1 5 10 15  
 Arg Gly Ser Gln Val Thr Ala Gly Glu Ala Asp Gly Arg Ala Pro Gly  
 20 25 30  
 Ser Pro Gly Pro Gln Ala Leu Lys Gly Gly Ala Arg Gly Ser Gly His  
 35 40 45  
 Val Leu Thr Ser Ser Ser Gly Ser Ala Cys Ala Gly Ser Pro Leu Cys  
 50 55 60  
 Pro Ala Met Ser His Leu Gly Val Ser His Val Arg Glu Gln Leu Leu  
 65 70 75 80  
 Leu Ser Ile Met Gln Phe Leu Ser Trp Val Ile Ala Val His Gly Glu  
 85 90 95  
 Gln Val His Ala Gln Pro Val His Pro Leu Phe Leu Leu Tyr Ile His  
 100 105 110  
 Tyr His Ser His His His Pro Asp Gln Gly Asp Glu Glu Glu Gly Pro  
 115 120 125  
 Gln His Ile Ala His His Gly Val Ala Val Gly Leu Gly Gly Ile Gly  
 130 135 140  
 His Ser Gly Val Thr His Asp Ile Ser Ser Arg Arg Ala Gly Trp Ser  
 145 150 155 160  
 Ala Trp Ala Val Ala Leu Arg Glu Gly Ala Ser Thr Gly Leu Pro Ser  
 165 170 175  
 Arg Met Leu Ile Val Pro Gly Gln Gly Gly Met Pro Gly Trp Gly Gly  
 180 185 190  
 Arg Gln Ala Ala Ala Arg Met Arg Ala Ser Asn Ser Gly Xaa Gly Gly  
 195 200 205  
 Gly Ser His Gly Ala Gly Xaa Ala His Ala Gly Gly Gly Gly Val Gly  
 210 215 220  
 Gly Cys  
 225

<210> 5117

<211> 1180

<212> DNA

<213> Homo sapiens

<400> 5117

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 120  
 agtgggaaaa gtgcaacagc gaacaccatc cttggagagg aaatcttga ttctagaaat  
 180  
 gctgcccacg ctgttaccaa gaactgtcaa aaagcatccc gggaatggca ggggagagac  
 240  
 ctcttctgtg tagacactcc agggctcttt gacaccaagg agagcctgga caccacctgc  
 300  
 aaggaaatca gccgctgcat catctcctcc tggccagggc cccatgctat tgcctagtt  
 360  
 ctgctgtctg gccgctacac agaggaggag cagaaaaacc ttgcattgat caaggctgtc  
 420  
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 480  
 ggccagagct tccatgactt catagcagat gcggtgtggt gcctaaaaag catcgtaag  
 540  
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 660  
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 720  
 gttttgagga aaatctacac tgaccaatta aatgaagaaa ttaaaactag agaagaggat  
 780  
 aagcataaat cagaggaaga aaaggagaaa gaaattaaat tactaaaatt aaaatatgat  
 840  
 gaaaaaataa aaaatataag ggaagaagct gagagaaata tatttaaga tgtttttaat  
 900  
 aggatttgga agatgctttc agaaatatgg cataggtttt tgcgaaatg taagttttat  
 960  
 tcttccta atactgtgat ttgttaatgg atgaattgta ttttgcaaag atagttagag  
 1020  
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 1080  
 ttaatgtata taatgtgatt tttaaatata tatatatata tatacacaca ttgtgaaata  
 1140  
 atgaaataaa ggtaattaac acatctaaaa aaaaaaaaaa  
 1180

&lt;210&gt; 5118

&lt;211&gt; 300

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5118

Met Ala Glu Ser Glu Asp Arg Ser Leu Arg Ile Val Leu Val Gly Lys  
 1 5 10 15  
 Thr Gly Ser Gly Lys Ser Ala Thr Ala Asn Thr Ile Leu Gly Glu Glu  
 20 25 30  
 Ile Phe Asp Ser Arg Ile Ala Ala Gln Ala Val Thr Lys Asn Cys Gln  
 35 40 45  
 Lys Ala Ser Arg Glu Trp Gln Gly Arg Asp Leu Leu Val Val Asp Thr  
 50 55 60  
 Pro Gly Leu Phe Asp Thr Lys Glu Ser Leu Asp Thr Thr Cys Lys Glu

65				70					75				80
Ile	Ser	Arg	Cys	Ile	Ile	Ser	Ser	Cys	Pro	Gly	Pro	His	Ile
				85					90				95
Leu	Val	Leu	Leu	Leu	Gly	Arg	Tyr	Thr	Glu	Glu	Glu	Gln	Thr
				100					105				110
Ala	Leu	Ile	Lys	Ala	Val	Phe	Gly	Lys	Ser	Ala	Met	Lys	Met
				115					120				125
Ile	Leu	Phe	Thr	Arg	Lys	Glu	Glu	Leu	Glu	Gly	Gln	Ser	Phe
				130					135				140
Phe	Ile	Ala	Asp	Ala	Asp	Val	Gly	Leu	Lys	Ser	Ile	Val	Lys
				145					150				155
Gly	Asn	Arg	Cys	Cys	Ala	Phe	Ser	Asn	Ser	Lys	Lys	Thr	Ser
				165					170				175
Glu	Lys	Glu	Ser	Gln	Val	Gln	Glu	Leu	Val	Glu	Leu	Ile	Glu
				180					185				190
Val	Gln	Cys	Asn	Glu	Gly	Ala	Tyr	Phe	Ser	Asp	Asp	Ile	Tyr
				195					200				205
Thr	Glu	Glu	Arg	Leu	Lys	Gln	Arg	Glu	Glu	Val	Leu	Arg	Lys
				210					215				220
Thr	Asp	Gln	Leu	Asn	Glu	Glu	Ile	Lys	Leu	Val	Glu	Glu	Asp
				225					230				235
Lys	Ser	Glu	Glu	Glu	Lys	Glu	Lys	Glu	Ile	Lys	Leu	Leu	Lys
				245					250				255
Tyr	Asp	Glu	Lys	Ile	Lys	Asn	Ile	Arg	Glu	Glu	Ala	Glu	Arg
				260					265				270
Phe	Lys	Asp	Val	Phe	Asn	Arg	Ile	Trp	Lys	Met	Leu	Ser	Glu
				275					280				285
His	Arg	Phe	Leu	Ser	Lys	Cys	Lys	Phe	Tyr	Ser	Ser		
				290					295				300

&lt;210&gt; 5119

&lt;211&gt; 1450

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5119

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cagctgggtga aaatcttatt cttgagtaga aaggaatcaa acaagtcata taccacccgt
120
cttcctgtct gtactggaac catcacaggc ttttgaggaa ctacttttga accgttcccc
180
agagaggcat ttgccccagt agctatgatt ataatttgca atgacagcca cagtgtattc
240
atccttctgg gttctctetaa caagccacat ttggagaaga tactttttng gatcattttt
300
attttttatt ttttgactct tgcaggaaat atggctatag ttcttgtgtc cttgaaggat
360
ccaaaactcc acatccctat gtatttcttt ctttccaacc tttccttggg agacctctgt
420
ttgaccagca gctgtgttcc acagatgttg attaacttct ggggccccaga aaagaccatc
480
agctacattg gctgtgccat tcaactctat gtttttttgt ggcttggggc cacggaatat
540

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gtccttcttg ttgcatggc tgtggattgt tatgtagcag tgtgtcatcc actgcaaaat  
 600  
 accatgatca tgcacccaaa actttgtctg cagctggcta tcttggcatg ggggactggc  
 660  
 ttggccagct ctctgatcca gtcccctgcc accctccggg tacccttctg ctcccagcgg  
 720  
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 780  
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 900  
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 960  
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 1080  
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 1140  
 aataactaac aaggttaaca tatgtttacc tttgcttaac ctaagaatag agaacaacct  
 1200  
 catcacaaaa agctggagat acacctccta agccaaaagt aggagagaaa gagctgcatt  
 1260  
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 1320  
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 1380  
 aaggacacaa tgcaattgaa tggggggagga ggagaagaca caagaacac attacttgca  
 1440  
 aaataaaaata  
 1450

&lt;210&gt; 5120

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5120

Met Ile Ile Ile Cys Asn Asp Ser His Ser Asp Phe Ile Leu Leu Gly  
 1 5 10 15  
 Phe Ser Asn Lys Pro His Leu Glu Lys Ile Leu Phe Xaa Ile Ile Phe  
 20 25 30  
 Ile Phe Tyr Phe Leu Thr Leu Ala Gly Asn Met Val Ile Val Leu Val  
 35 40 45  
 Ser Leu Lys Asp Pro Lys Leu His Ile Pro Met Tyr Phe Phe Leu Ser  
 50 55 60  
 Asn Leu Ser Leu Val Asp Leu Cys Leu Thr Ser Ser Cys Val Pro Gln  
 65 70 75 80  
 Met Leu Ile Asn Phe Trp Gly Pro Glu Lys Thr Ile Ser Tyr Ile Gly  
 85 90 95  
 Cys Ala Ile Gln Leu Tyr Val Phe Leu Trp Leu Gly Ala Thr Glu Tyr  
 100 105 110  
 Val Leu Leu Val Val Met Ala Val Asp Cys Tyr Val Ala Val Cys His

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      115              120              125
Pro Leu Gln Asn Thr Met Ile Met His Pro Lys Leu Cys Leu Gln Leu
130              135              140
Ala Ile Leu Ala Trp Gly Thr Gly Leu Ala Gln Ser Leu Ile Gln Ser
145              150              155              160
Pro Ala Thr Leu Arg Leu Pro Phe Cys Ser Gln Arg Met Val Asp Asp
165              170              175
Val Val Cys Glu Val Pro Ala Leu Ile Gln Leu Ser Ser Thr Asp Thr
180              185              190
Thr Tyr Ser Glu Ile Gln Met Ser Ile Ala Ser Val Val Leu Leu Val
195              200              205
Met Pro Leu Ile Ile Ile Leu Ser Ser Ser Gly Ala Ile Ala Lys Ala
210              215              220
Val Leu Arg Ile Lys Ser Thr Ala Gly Gln Lys Lys Ala Phe Gly Thr
225              230              235              240
Cys Ile Ser His Leu Leu Val Val Ser Leu Phe Tyr Gly Thr Val Thr
245              250              255
Gly Val Tyr Leu Gln Pro Lys Asn His Tyr Pro His Glu Trp Gly Lys
260              265              270
Phe Leu Thr Leu Phe Tyr Thr Val Val Thr Pro Thr Leu Asn Pro Leu
275              280              285
Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Gly Ala Leu Ile Arg Leu
290              295              300
Gly Arg Arg Thr Trp Asp Ser Gln Asn Asn
305              310

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&lt;210&gt; 5121

&lt;211&gt; 944

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5121

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240
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300
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360
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420
caggcaaa gttgacgagt tgtgctggac aaactgggct ggggtcgggc tgacctggga
480
gaactgtcaa aggtcaccaa agtgaaaaca gatcgacctt taccggagaa tcctatcac
540
tcaagaccaa gaccgatcc cagccctgag atcggaggag atctgcagcc tgccacacat
600
ggcagccgct tttatttctg gaccaagtaa agatgggtcc gtggccca ctcggtcatg
660

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 780  
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 900  
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 944

<210> 5122

<211> 172

<212> PRT

<213> Homo sapiens

<400> 5122

Met Pro Gly Ile Val Glu Leu Pro Thr Leu Glu Glu Leu Lys Val Asp  
 1 5 10 15  
 Glu Val Lys Ile Ser Ser Ala Val Leu Lys Ala Ala His His Tyr  
 20 25 30  
 Gly Ala Gln Cys Asp Lys Pro Asn Lys Glu Phe Met Leu Cys Arg Trp  
 35 40 45  
 Glu Glu Lys Asp Pro Arg Arg Cys Leu Glu Glu Gly Lys Leu Val Asn  
 50 55 60  
 Lys Cys Ala Leu Asp Phe Phe Arg Gln Ile Lys Arg His Cys Ala Glu  
 65 70 75 80  
 Pro Phe Thr Glu Tyr Trp Thr Cys Ile Asp Tyr Thr Gly Gln Gln Leu  
 85 90 95  
 Phe Arg His Cys Arg Lys Gln Gln Ala Lys Phe Asp Glu Cys Val Leu  
 100 105 110  
 Asp Lys Leu Gly Trp Val Arg Pro Asp Leu Gly Glu Leu Ser Lys Val  
 115 120 125  
 Thr Lys Val Lys Thr Asp Arg Pro Leu Pro Glu Asn Pro Tyr His Ser  
 130 135 140  
 Arg Pro Arg Pro Asp Pro Ser Pro Glu Ile Glu Gly Asp Leu Gln Pro  
 145 150 155 160  
 Ala Thr His Gly Ser Arg Phe Tyr Phe Trp Thr Lys  
 165 170

<210> 5123

<211> 1139

<212> DNA

<213> Homo sapiens

<400> 5123

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 agccatagga tagatcctgg agcttccctg agcctgtttt cttgcctggg agttagccat  
 180  
 gccttctggg gctgccaaga gggtaaagta gagagatggg tctagcttga tacagtatag  
 240

gcagctgctg gatgtcagct gtggttatga tcagctccat cttgttatga tgaagaccct  
 300  
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 420  
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 480  
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 660  
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 780  
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 900  
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 1020  
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 1080  
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 1139

&lt;210&gt; 5124

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5124

Ser Ala Pro Ser Cys Tyr Asp Glu Asp Pro Glu Val Arg Val Asp Pro  
 1 5 10 15  
 Thr Pro Lys Pro His Leu Ala Ala His Ser Cys Ser Leu Leu Gln Lys  
 20 25 30  
 Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe  
 35 40 45  
 Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala  
 50 55 60  
 Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg  
 65 70 75 80  
 Asp Leu Gly Cys His Val Glu Leu Arg Glu Leu Trp Thr Gly Gln Arg  
 85 90 95  
 Gly Asn Leu Ala Pro  
 100

&lt;210&gt; 5125

&lt;211&gt; 6244

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5125

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agcagtagccc ccacctccac cagcagaatc ggacctgggc agtgtcatct gtggacaccg  
120  
tcctcagtec cagctctcca ggcaacctgc ctcagcctga gtccttcagt ccacatcat  
180  
ccatcagcaa cattgccttt tataacaaaa ccaacaatgc acagaatggc catttgctgg  
240  
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360  
ctcaggcata ccaggacaac ctgtacaggc agctgtcccc agactctcgg caagggcaga  
420  
catccccat caaaccaag agaccgttcg tggagtctaa tgtttaaaag acgttttgg  
480  
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&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5126

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Met Phe Lys Arg Arg Phe Val Gly Val Arg Pro Ile Cys Phe His Cys
 1           5           10           15
Thr Phe Ser Gly Leu Val Ser Thr Phe Glu Val Val Leu Trp Leu Asn
 20           25           30
Phe Ser Cys Ser Phe Cys Val Val Phe Arg Gly Gly Ser Pro His Ala
 35           40           45
Glu Ile Leu Cys Met Gln Pro Thr Gly Lys Arg Pro Pro Gly Ser Gln
 50           55           60
Asp Phe Ser Phe Ser Cys Leu Cys Pro Ala Thr Cys Ser Leu Pro Leu
 65           70           75           80
Phe Arg Cys Gln Arg Gly Asp Phe Arg Ala Val Cys Phe Asn Pro Gly
 85           90           95
Arg Ser Asp Thr Leu Val Ser Phe Phe Gln Glu Thr Ile Ala Phe Thr
100          105          110
Asp Val Leu Val Val
115

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&lt;210&gt; 5127

&lt;211&gt; 400

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5127

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&lt;210&gt; 5128

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5128

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Gly Thr Ala Pro Met Pro Leu Gly Arg Pro Cys Gly Pro Ala Leu Gly
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Cys Val Phe Pro Ser Ser Ser Thr Cys Trp Thr Cys Thr Gly Pro
 20           25           30
Trp Gly Trp Thr Phe Thr Gly Thr Met Ser Ala Gly Ser Ala Ala Pro

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 <211> 745  
 <212> DNA  
 <213> Homo sapiens

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<210> 5130  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 5130  
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 Trp Ala Leu Ala Gly Ala Arg Gln Leu Phe Leu Ala Pro Gln Gln Ile  
 20 25 30  
 Ser Arg Gln Leu His Phe Arg Leu Leu Glu Glu Arg Gln Gly Val Gly  
 35 40 45  
 Gly Val Gly Leu Ser Ala Lys Gly Gly Lys His Pro Gln Asp Arg Asn  
 50 55 60  
 Leu Ala Ala Val Gly Pro Glu Val Gln Ala Cys Gly Trp Ala Arg Pro  
 65 70 75 80  
 Asp Pro Ala Cys Ala Gly Gly Gln Val Ala Gly Gly Gly Glu Pro Gly

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Val	Val	Gln	Ala	Ala	Trp	Met	Ser	Arg	Gln	Leu	Gly	Leu	Cys	Pro		
			100						105				110			

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 <212> DNA  
 <213> Homo sapiens

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 789

<210> 5132  
 <211> 263  
 <212> PRT  
 <213> Homo sapiens

<400> 5132  
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 Tyr Gly Pro Glu Ala Ile Ala Gln Tyr Gln Gly Arg Glu Leu Tyr Glu  
 35 40 45  
 Arg Pro Pro His Leu Tyr Ala Val Ala Asn Ala Ala Tyr Lys Ala Met  
 50 55 60  
 Lys His Arg Ser Arg Asp Thr Cys Ile Val Ile Ser Gly Glu Ser Gly

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65          70          75          80
Ala Gly Lys Thr Glu Ala Ser Lys His Ile Met Gln Tyr Ile Ala Ala
      85          90          95
Val Thr Asn Pro Ser Gln Arg Ala Glu Val Glu Arg Val Lys Asp Val
      100         105         110
Leu Leu Lys Ser Thr Cys Val Leu Glu Ala Phe Gly Asn Ala Arg Thr
      115         120         125
Asn Arg Asn His Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Asn
      130         135         140
Phe Asp Phe Lys Gly Asp Pro Ile Gly Gly His Ile His Ser Tyr Leu
145         150         155         160
Leu Glu Lys Ser Arg Val Leu Lys Gln His Val Gly Glu Arg Asn Phe
      165         170         175
His Ala Phe Tyr Gln Leu Leu Arg Gly Ser Glu Asp Lys Gln Leu His
      180         185         190
Glu Leu His Leu Glu Arg Asn Pro Ala Val Tyr Asn Phe Thr His Gln
      195         200         205
Gly Ala Gly Leu Asn Met Thr Val His Ser Ala Leu Asp Ser Asp Glu
      210         215         220
Gln Ser His Gln Ala Val Thr Glu Ala Met Arg Val Ile Gly Phe Ser
225         230         235         240
Pro Glu Glu Val Glu Ser Val His Arg Ile Leu Ala Ala Ile Leu His
      245         250         255
Leu Gly Asn Ile Glu Phe Val
      260

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&lt;210&gt; 5133

&lt;211&gt; 581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5133

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&lt;210&gt; 5134

&lt;211&gt; 157

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5134

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Met Asn Arg Phe Asp Arg Pro Asp Arg Asn Val Arg Gln Pro Gln Glu
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Gly Phe Trp Lys Arg Pro Pro Gln Arg Trp Ser Gly Gln Glu His Tyr
 20           25           30
His Leu Ser His Pro Asp His Tyr His His His Gly Lys Ser Asp Leu
 35           40           45
Ser Arg Gly Ser Pro Tyr Arg Glu Ser Pro Leu Gly His Phe Glu Ser
 50           55           60
Tyr Gly Gly Met Pro Phe Phe Gln Ala Gln Lys Met Phe Val Asp Val
 65           70           75           80
Pro Glu Asn Thr Val Ile Leu Asp Glu Met Thr Leu Arg His Met Val
 85           90           95
Gln Asp Cys Thr Ala Val Lys Thr Gln Leu Leu Lys Leu Lys Arg Leu
100           105           110
Leu His Gln His Asp Gly Ser Gly Ser Leu His Asp Ile Gln Leu Ser
115           120           125
Leu Pro Ser Ser Pro Glu Pro Glu Asp Gly Asp Lys Val Tyr Lys Asn
130           135           140
Glu Asp Leu Leu Asn Glu Ile Lys Gln Leu Lys Asp Glu
145           150           155

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&lt;210&gt; 5135

&lt;211&gt; 1696

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5135

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 1680  
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 1696

&lt;210&gt; 5136

&lt;211&gt; 341

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5136

Xaa Cys Glu Arg Leu Pro His Ala Pro Pro Pro Leu Arg Thr Met Phe  
 1 5 10 15  
 Pro Ser Arg Arg Lys Ala Ala Gln Leu Pro Trp Glu Asp Gly Arg Ser  
 20 25 30  
 Gly Leu Leu Ser Gly Gly Leu Pro Arg Lys Cys Ser Val Phe His Leu  
 35 40 45  
 Phe Val Ala Cys Leu Ser Leu Gly Phe Phe Ser Leu Leu Trp Leu Gln  
 50 55 60  
 Leu Ser Cys Ser Gly Asp Val Ala Arg Ala Val Arg Gly Gln Gly Gln  
 65 70 75 80  
 Glu Thr Ser Gly Pro Pro Arg Ala Cys Pro Pro Glu Pro Pro Pro Glu

```

      85              90              95
His Trp Glu Glu Asp Ala Ser Trp Gly Pro His Arg Leu Ala Val Leu
      100              105              110
Val Pro Phe Arg Glu Arg Phe Glu Glu Leu Leu Val Phe Val Pro His
      115              120              125
Met Arg Arg Phe Leu Ser Arg Lys Lys Ile Arg His His Ile Tyr Val
      130              135              140
Leu Asn Gln Val Asp His Phe Arg Phe Asn Arg Ala Ala Leu Ile Asn
      145              150              155
Val Gly Phe Leu Glu Ser Ser Asn Ser Thr Asp Tyr Ile Ala Met His
      165              170              175
Asp Val Asp Leu Leu Pro Leu Asn Glu Glu Leu Asp Tyr Gly Phe Pro
      180              185              190
Glu Ala Gly Pro Phe His Val Ala Ser Pro Glu Leu His Pro Leu Tyr
      195              200              205
His Tyr Lys Thr Tyr Val Gly Gly Ile Leu Leu Leu Ser Lys Gln His
      210              215              220
Tyr Arg Leu Cys Asn Gly Met Ser Asn Arg Phe Trp Gly Trp Gly Arg
      225              230              235
Glu Asp Asp Glu Phe Tyr Arg Arg Ile Lys Gly Ala Gly Leu Gln Leu
      245              250              255
Phe Arg Pro Ser Gly Ile Thr Thr Gly Tyr Lys Thr Phe Arg His Leu
      260              265              270
His Asp Pro Ala Trp Arg Lys Arg Asp Gln Lys Arg Ile Ala Ala Gln
      275              280              285
Lys Gln Glu Gln Phe Lys Val Asp Arg Glu Gly Gly Leu Asn Thr Val
      290              295              300
Lys Tyr His Val Ala Ser Arg Thr Ala Leu Ser Val Gly Gly Ala Pro
      305              310              315
Cys Thr Val Leu Asn Ile Met Leu Asp Cys Asp Lys Thr Ala Thr Pro
      325              330              335
Trp Cys Thr Phe Ser
      340

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&lt;210&gt; 5137

&lt;211&gt; 3090

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5137

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420

```

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540  
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1980  
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<210> 5138

<211> 371

<212> PRT

<213> Homo sapiens

<400> 5138

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 20 25 30  
 Ala Pro Leu Asp Trp Ala Leu Pro Leu Ser Glu Val Pro Ser Asp Trp  
 35 40 45  
 Glu Val Asp Asp Leu Leu Cys Ser Leu Leu Ser Pro Pro Ala Ser Leu  
 50 55 60  
 Asn Ile Leu Ser Ser Ser Asn Pro Cys Leu Val His His Asp His Thr  
 65 70 75 80  
 Tyr Ser Leu Pro Arg Glu Thr Val Ser Met Asp Leu Glu Ser Glu Ser

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<210> 5139
<211> 1968
<212> DNA
<213> Homo sapiens
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120
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180
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240
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300
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360  
ctttctgtcta ctaatgataa aactgtgaag ctgtggaaa gcagcgagcg tgataagagg  
420  
ccagaaggct acaatctgaa agatgaggag ggccggctcc gggatcctgc caccatcaca  
480  
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1860  
caggctcagg cggcccccact caccacacgc atccgcgcgc accccttcgg gtgtgagcgc  
1920

tcaataaaaa caacacacta taaagtgttt ttaaatccaa aaaaaaaaa  
1968

<210> 5140

<211> 443

<212> PRT

<213> Homo sapiens

<400> 5140

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Met Glu Glu Asp Ile Asp Thr Arg Lys Ile Asn Asn Ser Phe Leu Arg
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Asp His Ser Tyr Ala Thr Glu Ala Asp Ile Ile Ser Thr Val Glu Phe
           20           25           30
Asn His Thr Gly Glu Leu Leu Ala Thr Gly Asp Lys Gly Arg Val
 35           40           45
Val Ile Phe Gln Arg Glu Gln Glu Ser Lys Asn Gln Val His Arg Arg
 50           55           60
Gly Glu Tyr Asn Val Tyr Ser Thr Phe Gln Ser His Glu Pro Glu Phe
 65           70           75           80
Asp Tyr Leu Lys Ser Leu Glu Ile Glu Glu Lys Ile Asn Lys Ile Arg
           85           90           95
Trp Leu Pro Gln Gln Asn Ala Ala Tyr Phe Leu Leu Ser Thr Asn Asp
          100          105          110
Lys Thr Val Lys Leu Trp Lys Val Ser Glu Arg Asp Lys Arg Pro Glu
          115          120          125
Gly Tyr Asn Leu Lys Asp Glu Glu Gly Arg Leu Arg Asp Pro Ala Thr
          130          135          140
Ile Thr Thr Leu Arg Val Pro Val Leu Arg Pro Met Asp Leu Met Val
          145          150          155          160
Glu Ala Thr Pro Arg Arg Val Phe Ala Asn Ala His Thr Tyr His Ile
          165          170          175
Asn Ser Ile Ser Val Asn Ser Asp Tyr Glu Thr Tyr Met Ser Ala Asp
          180          185          190
Asp Leu Arg Ile Asn Leu Trp Asn Phe Glu Ile Thr Asn Gln Ser Phe
          195          200          205
Asn Ile Val Asp Ile Lys Pro Ala Asn Met Glu Glu Leu Thr Glu Val
          210          215          220
Ile Thr Ala Ala Glu Phe His Pro His His Cys Asn Thr Phe Val Tyr
          225          230          235          240
Ser Ser Ser Lys Gly Thr Ile Arg Leu Cys Asp Met Arg Ala Ser Ala
          245          250          255
Leu Cys Asp Arg His Thr Lys Phe Phe Glu Glu Pro Glu Asp Pro Ser
          260          265          270
Asn Arg Ser Phe Phe Ser Glu Ile Ile Ser Ser Ile Ser Asp Val Lys
          275          280          285
Phe Ser His Ser Gly Arg Tyr Ile Met Thr Arg Asp Tyr Leu Thr Val
          290          295          300
Lys Val Trp Asp Leu Asn Met Glu Ser Arg Pro Val Glu Thr His Gln
          305          310          315          320
Val His Asp Tyr Leu Arg Ser Lys Leu Cys Ser Leu Tyr Glu Asn Asp
          325          330          335
Cys Ile Phe Asp Lys Phe Glu Cys Val Trp Asn Gly Ser Asp Ser Val
          340          345          350
Ile Met Thr Gly Ser Tyr Asn Asn Phe Phe Arg Met Phe Asp Arg Asp

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355					360					365					
Thr	Lys	Arg	Asp	Val	Thr	Leu	Glu	Ala	Ser	Arg	Glu	Asn	Ser	Lys	Pro
370					375					380					
Arg	Ala	Ile	Leu	Lys	Pro	Arg	Lys	Val	Cys	Val	Gly	Gly	Lys	Arg	Arg
385					390					395					
Lys	Asp	Glu	Ile	Ser	Val	Asp	Ser	Leu	Asp	Phe	Ser	Lys	Lys	Ile	Leu
405					410					415					
His	Thr	Ala	Trp	His	Pro	Val	Asp	Asn	Val	Ile	Ala	Val	Ala	Ala	Thr
420					425					430					
Asn	Asn	Leu	Tyr	Ile	Phe	Gln	Asp	Lys	Ile	Asn					
435					440										

&lt;210&gt; 5141

&lt;211&gt; 928

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5141

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 120  
 atgtcggagc ggggtgctggg cctggcgggc tccatctacc gcgagttcga gcgcctcatc  
 180  
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 240  
 aacctagact cggtgctcag cgagaaccag gagcacgagg ttgagctgga gctgctgcgc  
 300  
 gaggacaacg agcagctgct caccagctac gagcgtgaga aggcgctcgc caggcaggcg  
 360  
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 420  
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 480  
 gatcagattt cccggttgga ggagcgggag tcggagatga agaaggagta caatgccctg  
 540  
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 928

&lt;210&gt; 5142

&lt;211&gt; 227

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5142

```

Met Ser Glu Arg Val Ser Gly Leu Ala Gly Ser Ile Tyr Arg Glu Phe
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Glu Arg Leu Ile His Cys Tyr Asp Glu Glu Val Val Lys Glu Leu Met
 20           25           30
Pro Leu Val Val Asn Val Leu Glu Asn Leu Asp Ser Val Leu Ser Glu
 35           40           45
Asn Gln Glu His Glu Val Glu Leu Glu Leu Arg Glu Asp Asn Glu
 50           55           60
Gln Leu Leu Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Arg Gln Ala
 65           70           75           80
Glu Glu Lys Phe Ile Glu Phe Glu Asp Ala Leu Glu Gln Glu Lys Lys
 85           90           95
Glu Leu Gln Ile Gln Val Glu His Tyr Glu Phe Gln Thr Arg Gln Leu
100           105           110
Glu Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Arg Leu Glu Glu
115           120           125
Arg Glu Ser Glu Met Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His
130           135           140
Thr Glu Met Ile Gln Thr Tyr Val Glu His Ile Glu Arg Ser Lys Met
145           150           155           160
Gln Gln Val Gly Gly Asn Ser Gln Thr Glu Ser Ser Leu Pro Gly Arg
165           170           175
Ser Arg Lys Glu Arg Pro Thr Ser Leu Asn Val Phe Pro Leu Ala Asp
180           185           190
Gly Thr Val Arg Ala Gln Ile Gly Gly Lys Leu Val Pro Ala Gly Asp
195           200           205
His Trp His Leu Ser Asp Leu Gly Gln Leu Gln Ser Ser Ser Tyr
210           215           220
Gln Val Leu
225

```

&lt;210&gt; 5143

&lt;211&gt; 1666

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5143

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120
cgagaagact ttcgggtgcg ctgcacctcg aagcgggctg tgaccgaaat gctacaactg
180
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240
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300
caagcatggc aggaagcttc agataattgt tttatggatt ctgacatcaa agtacttgaa
360
gatcagtttg atgaaatcat agtagatata gccacaaaac gtaagcagta tcccagaaag
420

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 660  
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 1260  
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 1380  
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 1440  
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 1560  
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 1620  
 tcattccagt tcaaaatata taccagatta atacactgaa aaaaaa  
 1666

&lt;210&gt; 5144

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5144

Leu Pro Glu Glu Ile Arg Glu Pro Ala Leu Arg Asp Ala Gln Trp Thr  
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 Phe Glu Ser Ala Val Gln Glu Asn Ile Ser Ile Asn Gly Gln Ala Trp  
 20 25 30  
 Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu

35	40	45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys		
50	55	60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala		
65	70	75
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp		80
	85	90
Leu Lys Tyr Asp Pro Asp Pro Ala Pro His Met Glu Asn Leu Lys Cys		95
	100	105
Arg Gly Glu Thr Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu		110
	115	120
Pro Ala Leu Ile Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met		125
	130	135
Gln Pro Val Ile His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser		140
145	150	155
Cys His Arg Lys Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile		160
	165	170
Glu Thr Thr Pro Thr Glu Thr Ala Ser Arg Lys Thr Ser Asp Met Val		175
	180	185
Leu Lys Arg Lys Gln Thr Lys Asp Cys Pro Gln Arg Lys Trp Tyr Pro		190
	195	200
Leu Arg Pro Lys Lys Ile Asn Leu Asp Thr		205
	210	215

&lt;210&gt; 5145

&lt;211&gt; 1885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5145

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720

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 1080  
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 1885

&lt;210&gt; 5146

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5146

Pro Ala Thr Ser Glu Lys Glu Ser Ile Leu Leu Phe Pro Asp Leu Arg  
 1 5 10 15  
 Cys Ala Leu Ala Gly His Asn Asp Leu Val Glu Ile His Leu Ser Gly  
 20 25 30  
 Arg Leu Gly Val Cys Thr Gly Leu Ala Cys Ala Tyr His Leu Leu Cys  
 35 40 45  
 Thr Pro Pro Thr Pro Cys Ile Pro Thr Pro Gly Leu Val Ala Pro Ala

50                      55                      60  
 Leu Gly Lys Val Ser Pro Cys Ala Cys Thr Arg Arg Gln Thr Glu Lys  
 65                      70                      75                      80  
 Ala Ala Gly Gly Leu Cys Cys Ser Ala Arg Gly Ser Ala Leu Pro Pro  
                     85                      90                      95  
 Ser Phe Leu Leu Leu Ile Ala Pro Val Cys Gly Ala Tyr Thr Pro Thr  
                     100                      105                      110  
 Ser Cys Asn Lys Ile Val Ala Ser Ala Lys Lys Pro Gly Ile Arg Thr  
                     115                      120                      125  
 Gly Ile Gln Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly  
                     130                      135                      140  
 Asn Pro Gly Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala  
 145                      150                      155                      160  
 Arg Gly Ile Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile  
                     165                      170                      175  
 Lys Asp Gln Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro  
                     180                      185                      190  
 Met Gly Gly Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu  
                     195                      200                      205  
 Glu Pro Tyr Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly  
                     210                      215                      220  
 Tyr Tyr Tyr Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu  
 225                      230                      235                      240  
 Ser Ile Val Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe  
                     245                      250                      255  
 Cys Asp Thr Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met  
                     260                      265                      270  
 Val Leu Gln Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro  
                     275                      280                      285  
 Lys Lys Gly His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser  
                     290                      295                      300  
 Gly Phe Leu Ile Phe Pro Ser Ala  
 305                      310

&lt;210&gt; 5147

&lt;211&gt; 2943

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5147

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 gccaccgcgt tcgtgtgtggc ggccggcagc gccgtctttg acgccatggt caacggcgcc  
 180  
 atggccacca cgtcgccgga gatcgagctg ccggacgtgg agcccgagc cttcctggcg  
 240  
 ctgctgagat ttctatatc agatgaagt caaattggct cagaacagc tatgaccact  
 300  
 ctttatactg ccaagaata cgcagtccca gccttggaag cacactgtgt agaatttctc  
 360  
 accaaacatc ttagggcaga taatgccttt atgttactta ctcaggctcg attatttgat  
 420

gaacctcagc ttgctagtct ttgtctagat acaatagaca aaagcacaat ggatgcaata  
480  
agtgcagaag ggtttactga tattgatata gatacactct gtgcagtttt agagagagac  
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720  
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1380  
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1920  
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1980  
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2040

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 2820  
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 2880  
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 2940  
 aaa  
 2943

<210> 5148

<211> 296

<212> PRT

<213> Homo sapiens

<400> 5148

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Ile	Asp	Lys	Ser	Thr	Met	Asp	Ala	Ile	Ser	Ala	Glu	Gly	Phe	Thr	Asp
		20					25						30		
Ile	Asp	Ile	Asp	Thr	Leu	Cys	Ala	Val	Leu	Glu	Arg	Asp	Thr	Leu	Ser
		35				40					45				
Ile	Arg	Glu	Ser	Arg	Leu	Phe	Gly	Ala	Val	Val	Arg	Trp	Ala	Glu	Ala
		50			55						60				
Glu	Cys	Gln	Arg	Gln	Gln	Leu	Pro	Val	Thr	Phe	Gly	Asn	Lys	Gln	Lys
65				70					75					80	
Val	Leu	Gly	Lys	Ala	Leu	Ser	Leu	Ile	Arg	Phe	Pro	Leu	Met	Thr	Ile
			85					90					95		
Glu	Glu	Phe	Ala	Ala	Gly	Pro	Ala	Gln	Ser	Gly	Ile	Leu	Ser	Asp	Arg
			100				105						110		
Glu	Val	Val	Asn	Leu	Phe	Leu	His	Phe	Thr	Val	Asn	Pro	Lys	Pro	Arg

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      115              120              125
Val Glu Tyr Ile Asp Arg Pro Arg Cys Cys Leu Arg Gly Lys Glu Cys
      130              135              140
Cys Ile Asn Arg Phe Gln Gln Val Glu Ser Arg Trp Gly Tyr Ser Gly
145              150              155              160
Thr Ser Asp Arg Ile Arg Phe Thr Val Asn Arg Arg Ile Ser Ile Val
      165              170              175
Gly Phe Gly Leu Tyr Gly Ser Ile His Gly Pro Thr Asp Tyr Gln Val
      180              185              190
Asn Ile Gln Ile Ile Glu Tyr Glu Lys Lys Gln Thr Leu Gly Gln Asn
      195              200              205
Asp Thr Gly Phe Ser Cys Asp Gly Thr Ala Asn Thr Phe Arg Val Met
      210              215              220
Phe Lys Glu Pro Ile Glu Ile Leu Pro Asn Val Cys Tyr Thr Ala Cys
225              230              235              240
Ala Thr Leu Lys Gly Pro Asp Ser His Tyr Gly Thr Lys Gly Leu Lys
      245              250              255
Lys Val Val His Glu Thr Pro Ala Ala Ser Lys Thr Val Phe Phe Phe
      260              265              270
Phe Ser Ser Pro Gly Asn Asn Asn Gly Thr Ser Ile Glu Asp Gly Gln
      275              280              285
Ile Pro Glu Ile Ile Phe Tyr Thr
      290              295

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&lt;210&gt; 5149

&lt;211&gt; 533

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5149

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360
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420
agaagcacta acatagctgc agctgccagt gagccacact cctgagacac tctctaaatt
480
gctgcactcc tgtaacaaac attattttcc atttcattgt attgtgtttt gca
533

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&lt;210&gt; 5150

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5150

Xaa Arg Met Ala Val Met Ala Met Gly Ile Lys Asp Asp Arg Leu Asn  
 1 5 10 15  
 Lys Asp Arg Cys Val Arg Leu Ala Leu Val His Asp Met Ala Glu Cys  
 20 25 30  
 Ile Val Gly Asp Ile Ala Pro Ala Asp Asn Ile Pro Lys Glu Glu Lys  
 35 40 45  
 His Arg Arg Glu Glu Glu Ala Met Lys Gln Ile Thr Gln Leu Leu Pro  
 50 55 60  
 Glu Asp Leu Arg Lys Glu Leu Tyr Glu Leu Trp Glu Glu Tyr Glu Thr  
 65 70 75 80  
 Gln Ser Ser Ala Glu Ala Lys Phe Val Lys Gln Leu Asp Gln Cys Glu  
 85 90 95  
 Met Ile Leu Gln Ala Ser Glu Tyr Glu Asp Leu Glu His Lys Pro Gly  
 100 105 110  
 Arg Leu Gln Asp Phe Tyr Asp Ser Thr Ala Gly Lys Phe Asn His Pro  
 115 120 125  
 Glu Ile Val Gln Leu Val Ser Glu Leu Glu Ala Glu Arg Ser Thr Asn  
 130 135 140  
 Ile Ala Ala Ala Ser Glu Pro His Ser  
 145 150

&lt;210&gt; 5151

&lt;211&gt; 2273

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5151

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 cgagagtctg agtcgcgggg cagctccggt cgcgtcaagc gggagcgaga tcgggagcgg  
 120  
 gaggcctgagg cggcgagctc ccggggcagc cctgtgcgcg tgaagcggga gttcgagccg  
 180  
 gcgagcgcgc gcgagggccc ggcttctgtt gtcccgtttg tcggggtgaa gcgggagcgc  
 240  
 gaggtcgatg aggactcgga gcctgagcgg gaggtgcgag caaagaatgg ccgagtgatg  
 300  
 tctgaggacc ggaggagccg ccaactgectg tacctggaca ccattaacag gagtgtgctg  
 360  
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 420  
 ctggtgtgtg gcaagtaact tcaagctttt cacccttccc tacaggccgg ggtttgaagt  
 480  
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900  
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2100  
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2273

&lt;210&gt; 5152

&lt;211&gt; 324

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5152

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Thr Met Arg Ser Ser Ile Pro His Trp Arg Ile Ser Arg Met Cys Leu
              20              25              30
Lys Pro Thr Phe Thr Lys Gln Gln Ile Ala Asn Leu Asp Lys Gln Ala
 35              40              45
Lys Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
 50              55              60
Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu Gln
 65              70              75              80
Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu Glu Asp
              85              90              95
Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met Phe Leu Leu
 100              105              110
Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp Asn Pro Arg Asn
 115              120              125
Phe Lys Ala His Val Ser Pro His Glu Met Leu Gln Ala Val Val Leu
 130              135              140
Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys Gln Gly Asp Gly Val Asp
 145              150              155              160
Phe Leu Ser Trp Phe Leu Asn Ala Leu His Ser Ala Leu Gly Gly Thr
              165              170              175
Lys Lys Lys Lys Lys Thr Ile Val Thr Asp Val Phe Gln Gly Ser Met
 180              185              190
Arg Ile Phe Thr Lys Lys Leu Pro His Pro Asp Leu Pro Ala Glu Glu
 195              200              205
Lys Glu Gln Leu Leu His Asn Asp Glu Tyr Gln Glu Thr Met Val Glu
 210              215              220
Ser Thr Phe Met Tyr Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr
 225              230              235              240
Lys Asp Glu Lys Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn
              245              250              255
Ile Leu Ala Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr
 260              265              270
Lys Glu Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr
 275              280              285
Leu Ile Phe Cys Ile Lys Ile Phe Thr Lys Asn Asn Phe Phe Val Glu
 290              295              300
Lys Asn Pro Thr Ser Cys Gln Phe Pro Tyr Tyr Lys Cys Gly Ser Glu
 305              310              315              320
Arg Ile Leu Val

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&lt;210&gt; 5153

&lt;211&gt; 640

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5153

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640

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&lt;210&gt; 5154

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5154

```

Xaa Leu Ala Gly Glu Glu Glu Val Asp Leu Ile Val His Ile Arg Leu
  1             5             10             15
Leu Glu Arg Thr Thr Ser Pro Thr Ile Pro Ser Phe Tyr Thr Phe Ser
      20             25             30
Ala Cys His Arg Trp Leu Gln Glu Gly Ser Thr Leu Gly Gly Thr Gly
      35             40             45
Glu Leu Ala Phe Gly Ala Asp Thr Leu Leu Thr Leu Pro Phe Leu Leu
      50             55             60
Gln Gly Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val
      65             70             75             80
Val Gln Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Ile
      85             90             95
Ile Tyr Ala Trp Ser Ile Gly Gly Phe Thr Ala Thr Trp Ala Ala Met
      100            105            110
Ser Tyr Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp
      115            120            125
Leu Val Pro Leu Ala Leu Lys Val Met Pro Asp Ser Trp Ser Glu Cys
      130            135            140
Ser Ser Gln Ala Cys Pro Ser Trp Glu Gly Val Gly Trp Asn Trp Glu
      145            150            155            160
Leu Phe

```

&lt;210&gt; 5155

&lt;211&gt; 1402

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 5155  
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120  
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180  
gcctgtggca cctgagccag ccattatcat caccagcact tccatgagct acaagctgga  
240  
cccactgcag tcctcctgac aactgaaat cagagcctgc acacagagca gcagatgctt  
300  
caatgtaaa gtcatttcca ggtccttgac aggcgtgcat ctgggccaga tccatggcaa  
360  
taaccttcag gttgaggcta gagggcttca gatgggcagc ttcgaatgac aggagcaagg  
420  
aacaagaggc cggaaaggga ggggtgacatt ttcagcatct ataagatcaa ctttagaaat  
480  
atttgggggt tgacaaattc ccataagct ctgtggatct tgtacaacta ctcaccaccg  
540  
gcttctcatc agcacatgat tgggtgcaggg ttctgaggat gattttgaga tgttccctga  
600  
tgtgggtcctg tgaggagatt tcatgacgga tggcaggaaa cttcgtggag agatttctga  
660  
agacactcct gagctcccaa caccgggcaa ctctcttcca gaggatattg ggggtggagg  
720  
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780  
cgtaaacc aa ctttggtcta cagttagaca ccagtttctg gcagatgaaa tcctctgcat  
840  
ttcaggcatt ttgtcaatta agctgctcag caacaatagg ataaacttat gaaaagaaag  
900  
gagtagcagt cccacagaca aagcatccag cccctgcact gagacagtat aggggaaggga  
960  
cttggtcctg gcagacagga cagataatca acatcctagt gggccttaca catgtgggca  
1020  
tattcttttc cataccttct tgtctgtttt aacaagctaa cccagctcac agtagcagag  
1080  
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1260  
ctgagctttc accaagtttt tctcactaca atctcattgt aataactaaaa tctccacca  
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1402

<210> 5156

<211> 118

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5156

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Tyr Ile Glu Ala Ser Ala Ala Leu Cys Ala Gly Ser Asp Phe Ser Val
          20           25           30
Ser Gly Gly Leu Gln Trp Val Gln Leu Val Ala His Gly Ser Ala Gly
          35           40           45
Asp Asp Asn Gly Trp Leu Arg Cys His Arg Pro Pro Trp Gln Gly Leu
          50           55           60
Gly Asp Asn Glu Leu Asp Gly Cys Ser Gly Glu Val Asn Val Ser Gln
65           70           75           80
Asp Phe Val Lys Thr Leu Leu Arg Ile Cys Asn Ala Ile Pro Ser Phe
          85           90           95
Arg Gly Leu Leu Glu Ser Cys Met Phe Gly Cys Arg Ala Arg Val Thr
          100          105          110
Arg Asn Phe Trp Thr Leu
          115

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&lt;210&gt; 5157

&lt;211&gt; 1310

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5157

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240
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420
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660
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720
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780
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840

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 1310

<210> 5158

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5158

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Thr	Ser	Ser	Cys	Leu	Ser	Ser	Asn	Ala	Ser	Arg	Met	Leu	His	Cys	Ser
			20					25				30			
Gln	Glu	Leu	Ala	Ile	Arg	Tyr	Val	Leu	Cys	Gly	Gln	Ser	Ala	Ser	Gln
		35				40					45				
Thr	His	Arg	Cys	Ser	Pro	Ala	Trp	Leu	Ser	Trp	Asp	Leu	Asn	Leu	Leu
	50					55				60					
Val	Lys	Ser	Phe	Ser	Leu	Ser	Glu	Val	Pro	Ser	Leu	Gln	Met	Leu	Asn
65				70					75				80		

Leu Ala

<210> 5159

<211> 3233

<212> DNA

<213> Homo sapiens

<400> 5159

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 120  
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 240  
 agttgcattt ctggacatga gagcagtgtt gtgaaactta gatgatgcat atagagaagg  
 300  
 cagcgagtgt gtttgaggat agtgagcgaa cagtttgtct gttcacggac atctgtccag  
 360

agtggcaagc acatagtggtg taaccagaat gggcctcttc cctttccttt ttggttacct  
420  
cacaactcag tataggtact gactgcaaaa tctccacatt tgtatatctt tttagcgtaat  
480  
gaaggcgatc tcttccaccg gctgtggcac atcatgaatg aaatcctgga cctgaggcgg  
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600  
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1980

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 3233

&lt;210&gt; 5160

&lt;211&gt; 849

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5160

Met Asn Glu Ile Leu Asp Leu Arg Arg Gln Val Leu Val Gly His Leu  
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 Thr His Asp Arg Met Lys Asp Val Lys Arg His Ile Thr Ala Arg Leu  
 20 25 30  
 Asp Trp Gly Asn Glu Gln Leu Gly Leu Asp Leu Val Pro Arg Lys Glu

35 40 45  
 Tyr Ala Met Val Asp Pro Glu Asp Ile Ser Ile Thr Glu Leu Tyr Arg  
 50 55 60  
 Leu Ser Met Leu Ile Met Phe Leu Leu Gly Gly Val Ile Gln Met Glu  
 65 70 75 80  
 His Arg His Arg Lys Lys Asp Thr Pro Val Gln Ala Ser Ser His His  
 85 90 95  
 Leu Phe Val Gln Met Lys Ser Leu Met Cys Ser Asn Leu Gly Glu Glu  
 100 105 110  
 Leu Glu Val Ile Phe Ser Leu Phe Asp Ser Lys Glu Asn Arg Pro Ile  
 115 120 125  
 Ser Glu Arg Phe Phe Leu Arg Leu Asn Arg Asn Gly Leu Pro Lys Ala  
 130 135 140  
 Pro Asp Lys Pro Glu Arg His Cys Ser Leu Phe Val Asp Leu Gly Ser  
 145 150 155 160  
 Ser Glu Leu Arg Lys Asp Ile Tyr Ile Thr Val His Ile Ile Arg Ile  
 165 170 175  
 Gly Arg Met Gly Ala Gly Glu Lys Lys Asn Ala Cys Ser Val Gln Tyr  
 180 185 190  
 Arg Arg Pro Phe Gly Cys Ala Val Leu Ser Ile Ala Asp Leu Leu Thr  
 195 200 205  
 Gly Glu Thr Lys Asp Asp Leu Ile Leu Lys Val Tyr Met Cys Asn Thr  
 210 215 220  
 Glu Ser Glu Trp Tyr Gln Ile His Glu Asn Ile Ile Lys Lys Leu Asn  
 225 230 235 240  
 Ala Arg Tyr Asn Leu Thr Gly Ser Asn Ala Gly Leu Ala Val Ser Leu  
 245 250 255  
 Gln Leu Leu His Gly Asp Ile Glu Gln Ile Arg Arg Glu Tyr Ser Ser  
 260 265 270  
 Val Phe Ser His Gly Val Ser Ile Thr Arg Lys Leu Gly Phe Ser Asn  
 275 280 285  
 Ile Ile Met Pro Gly Glu Met Arg Asn Asp Leu Tyr Ile Thr Ile Glu  
 290 295 300  
 Arg Gly Glu Phe Glu Lys Gly Gly Lys Ser Val Ala Arg Asn Val Glu  
 305 310 315 320  
 Val Thr Met Phe Ile Val Asp Ser Ser Gly Gln Thr Leu Lys Asp Phe  
 325 330 335  
 Ile Ser Phe Gly Ser Gly Glu Pro Pro Ala Ser Glu Tyr His Ser Phe  
 340 345 350  
 Val Leu Tyr His Asn Asn Ser Pro Arg Trp Ser Glu Leu Leu Lys Leu  
 355 360 365  
 Pro Ile Pro Val Asp Lys Phe Arg Gly Ala His Ile Arg Phe Glu Phe  
 370 375 380  
 Arg His Cys Ser Thr Lys Glu Lys Gly Glu Lys Lys Leu Phe Gly Phe  
 385 390 395 400  
 Ser Phe Val Pro Leu Met Gln Glu Asp Gly Arg Thr Leu Pro Asp Gly  
 405 410 415  
 Thr His Glu Leu Ile Val His Lys Cys Glu Glu Asn Thr Asn Leu Gln  
 420 425 430  
 Asp Thr Thr Arg Tyr Leu Lys Leu Pro Phe Ser Lys Gly Ile Phe Leu  
 435 440 445  
 Gly Asn Asn Asn Gln Ala Met Lys Ala Thr Lys Glu Ser Phe Cys Ile  
 450 455 460  
 Thr Ser Phe Leu Cys Ser Thr Lys Leu Thr Gln Asn Gly Asp Met Leu

465                      470                      475                      480  
 Asp Leu Leu Lys Trp Arg Thr His Pro Asp Lys Ile Thr Gly Cys Leu  
                                  485                      490                      495  
 Ser Lys Leu Lys Glu Ile Asp Gly Ser Glu Ile Val Lys Phe Leu Gln  
                                  500                      505                      510  
 Asp Thr Leu Asp Thr Leu Phe Gly Ile Leu Asp Glu Asn Ser Gln Lys  
                                  515                      520                      525  
 Tyr Gly Ser Lys Val Phe Asp Ser Leu Val His Ile Ile Asn Leu Leu  
                                  530                      535                      540  
 Gln Asp Ser Lys Phe His His Phe Lys Pro Val Met Asp Thr Tyr Ile  
                                  545                      550                      555                      560  
 Glu Ser His Phe Ala Gly Ala Leu Ala Tyr Arg Asp Leu Ile Lys Val  
                                  565                      570                      575  
 Leu Lys Trp Tyr Val Asp Arg Ile Thr Glu Ala Glu Arg Gln Glu His  
                                  580                      585                      590  
 Ile Gln Glu Val Leu Lys Ala Gln Glu Tyr Ile Phe Lys Tyr Ile Val  
                                  595                      600                      605  
 Gln Ser Arg Arg Leu Phe Ser Leu Ala Thr Gly Gly Gln Asn Glu Glu  
                                  610                      615                      620  
 Glu Phe Arg Cys Cys Ile Gln Glu Leu Leu Met Ser Val Arg Phe Phe  
                                  625                      630                      635                      640  
 Leu Ser Gln Glu Ser Lys Gly Ser Gly Ala Leu Ser Gln Ser Gln Ala  
                                  645                      650                      655  
 Val Phe Leu Ser Ser Phe Pro Ala Val Tyr Ser Glu Leu Leu Lys Leu  
                                  660                      665                      670  
 Phe Asp Val Arg Glu Val Ala Asn Leu Val Gln Asp Thr Leu Gly Ser  
                                  675                      680                      685  
 Leu Pro Thr Ile Leu His Val Asp Asp Ser Leu Gln Ala Ile Lys Leu  
                                  690                      695                      700  
 Gln Cys Ile Gly Lys Thr Val Glu Ser Gln Leu Tyr Thr Asn Pro Asp  
                                  705                      710                      715                      720  
 Ser Arg Tyr Ile Leu Leu Pro Val Val Leu His His Leu His Ile His  
                                  725                      730                      735  
 Leu Gln Glu Gln Lys Asp Leu Ile Met Cys Ala Arg Ile Leu Ser Asn  
                                  740                      745                      750  
 Val Phe Cys Leu Ile Lys Lys Asn Ser Ser Glu Lys Ser Val Leu Glu  
                                  755                      760                      765  
 Glu Ile Asp Val Ile Val Ala Ser Leu Leu Asp Ile Leu Leu Arg Thr  
                                  770                      775                      780  
 Ile Leu Glu Ile Thr Ser Arg Pro Gln Pro Ser Ser Ser Ala Met Arg  
                                  785                      790                      795                      800  
 Phe Gln Phe Gln Asp Val Thr Gly Glu Phe Val Ala Cys Leu Leu Ser  
                                  805                      810                      815  
 Leu Leu Arg Gln Met Thr Asp Arg His Tyr Gln Gln Leu Leu Asp Ser  
                                  820                      825                      830  
 Phe Asn Thr Lys Glu Glu Leu Arg Val Ser Asp Ile Leu Lys Cys Phe  
                                  835                      840                      845  
 Leu

&lt;210&gt; 5161

&lt;211&gt; 1645

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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1320  
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1380  
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1440  
tttgcctcac caggaaaaa gttacacatt ttaagagaac agagctacgt tctttgtgag  
1500  
agctttttcc ttgcttgac ttgctctttg tcacagactg cataagttgt cagccttgac  
1560

tatcttttga ataagattt gatttttaaac aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
1620

aaaaaaaaaa aaaaaaaaaa aaaaa

1645

<210> 5162

<211> 207

<212> PRT

<213> Homo sapiens

<400> 5162

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Ile Lys Pro Gly Val Arg Glu Ile His Leu Cys Lys Asp Glu Arg Gly
                20             25             30
Lys Thr Gly Leu Arg Leu Arg Lys Val Asp Gln Gly Leu Phe Val Gln
                35             40             45
Leu Val Gln Ala Asn Thr Pro Ala Ser Leu Val Gly Leu Arg Phe Gly
                50             55             60
Asp Gln Leu Leu Gln Ile Asp Gly Arg Asp Cys Ala Gly Trp Ser Ser
65             70             75             80
His Lys Ala His Gln Val Val Lys Lys Ala Ser Gly Asp Lys Ile Val
                85             90             95
Val Val Val Arg Asp Arg Pro Phe Gln Arg Thr Val Thr Met His Lys
                100            105            110
Asp Ser Met Gly His Val Gly Phe Val Ile Lys Lys Gly Lys Ile Val
                115            120            125
Ser Leu Val Lys Gly Ser Ser Ala Ala Cys Asn Gly Leu Leu Thr Asn
                130            135            140
His Tyr Val Cys Glu Val Asp Gly Gln Asn Val Ile Gly Leu Lys Asp
145            150            155            160
Lys Lys Ile Met Glu Ile Leu Ala Thr Ala Gly Asn Val Val Thr Leu
                165            170            175
Thr Ile Ile Pro Ser Val Ile Tyr Glu His Met Val Lys Lys Leu Pro
                180            185            190
Pro Val Leu Leu His His Thr Met Asp His Ser Ile Pro Asp Ala
                195            200            205
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<210> 5163

<211> 1187

<212> DNA

<213> Homo sapiens

<400> 5163

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120
tttttatttt taaatacatg tatagcatga gtgatggagc caaacacaag ttttgaagcc
180
aagctcttgg ttctgagaaa caggcccaac actgcacagt gtcattcgca gtcaacccaa
240
ccactgtctg agttcacgtg acgatttctc ctgccaggtc acgggaagtt gttattttaa
300
```

gatggcagtt attacgaagg ggcgtttgtg gacggagaga tcacgggaga aggccgccgg  
 360  
 cactggggcct ggtcaggaga caccttctct ggacagtttg ttctgggaga gcctcaaggc  
 420  
 tacggcgctca tggagtacaa agccggcgga tgttatgaag gggaggtctc ccacggcatg  
 480  
 cggaagggac acgggttttct ggtggaccgg gatggacaag tgtaccaggg ctccttccat  
 540  
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 600  
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 660  
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 720  
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 780  
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 840  
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 900  
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 1080  
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 1140  
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 1187

&lt;210&gt; 5164

&lt;211&gt; 213

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5164

Arg Phe Leu Leu Pro Gly His Gly Lys Leu Leu Phe Lys Asp Gly Ser  
 1 5 10 15  
 Tyr Tyr Glu Gly Ala Phe Val Asp Gly Glu Ile Thr Gly Glu Gly Arg  
 20 25 30  
 Arg His Trp Ala Trp Ser Gly Asp Thr Phe Ser Gly Gln Phe Val Leu  
 35 40 45  
 Gly Glu Pro Gln Gly Tyr Gly Val Met Glu Tyr Lys Ala Gly Gly Cys  
 50 55 60  
 Tyr Glu Gly Glu Val Ser His Gly Met Arg Glu Gly His Gly Phe Leu  
 65 70 75 80  
 Val Asp Arg Asp Gly Gln Val Tyr Gln Gly Ser Phe His Asp Asn Lys  
 85 90 95  
 Arg His Gly Pro Gly Gln Met Leu Phe Gln Asn Gly Asp Lys Tyr Asp  
 100 105 110  
 Gly Asp Trp Val Arg Asp Arg Arg Gln Gly His Gly Val Leu Arg Cys  
 115 120 125  
 Ala Asp Gly Ser Thr Tyr Lys Gly Gln Trp His Ser Asp Val Phe Ser

130		135		140
Gly Leu Gly Ser Met	Ala His Cys Ser	Gly Val Thr Tyr	Tyr Gly Leu	
145	150	155	160	
Trp Ile Asn Gly His	Pro Ala Glu Gln	Ala Thr Arg Ile	Val Ile Leu	
	165	170	175	
Gly Pro Glu Val Met	Glu Val Ala Gln	Gly Ser Pro Phe	Ser Val Asn	
	180	185	190	
Val Gln Leu Leu Gln	Asp His Gly Glu	Ile Ala Lys Ser	Lys His Leu	
	195	200	205	
Gln Gly Glu Met Thr				
210				

&lt;210&gt; 5165

&lt;211&gt; 2370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5165

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 60  
 cgtggagcca ccatggaccc cgcaggggca gcagaccctc cagtgcctcc caatcctttg  
 120  
 actcacctga gcctgcagga cagatcagag atgcagctgc agagcgaagc cgacagggcg  
 180  
 agcctcccgg gcacttgga caggtcatcc ccagagcaca ccaccattct gaggggaggg  
 240  
 gtgcgcaggt gcctgcagca acagtgtgaa cagactgtgc ggatcctgca tgccaagggtg  
 300  
 gcccagaaat catacggaaa tgagaagcgg ttcttctgcc cccgcgacctg tgtctacctc  
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 420  
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 480  
 cagaagctga atttcagca gcagccggac tccagggaat tcggctgcgc caagaccctg  
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 1080

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 1260  
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 1320  
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 1380  
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 1680  
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 1740  
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 ctccctccct tgtccttaca catacaggaa gacaagacct gagggtgct gtctttgtgt  
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 1920  
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 1980  
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 2040  
 aagtttgga catttaccct ccaggcatct atgtcccttc ttgaagagaa aacacacagc  
 2100  
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 2160  
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 2220  
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 2280  
 aagacctgct cctcccgaga ctctctctga ctgcagccag gcatagtacc ctgctctgtg  
 2340  
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 2370

&lt;210&gt; 5166

&lt;211&gt; 521

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5166

Met Asp Pro Ala Gly Ala Ala Asp Pro Ser Val Pro Pro Asn Pro Leu  
 1 5 10 15  
 Thr His Leu Ser Leu Gln Asp Arg Ser Glu Met Gln Leu Gln Ser Glu

20 25 30  
 Ala Asp Arg Arg Ser Leu Pro Gly Thr Trp Thr Arg Ser Ser Pro Glu  
 35 40 45  
 His Thr Thr Ile Leu Arg Gly Gly Val Arg Arg Cys Leu Gln Gln Gln  
 50 55 60  
 Cys Glu Gln Thr Val Arg Ile Leu His Ala Lys Val Ala Gln Lys Ser  
 65 70 75 80  
 Tyr Gly Asn Glu Lys Arg Phe Phe Cys Pro Pro Pro Cys Val Tyr Leu  
 85 90 95  
 Ser Gly Pro Gly Trp Arg Val Lys Pro Gly Gln Asp Gln Ala His Gln  
 100 105 110  
 Ala Gly Glu Thr Gly Pro Thr Val Cys Gly Tyr Met Gly Leu Asp Ser  
 115 120 125  
 Ala Ser Gly Ser Ala Thr Glu Thr Gln Lys Leu Asn Phe Glu Gln Gln  
 130 135 140  
 Pro Asp Ser Arg Glu Phe Gly Cys Ala Lys Thr Leu Tyr Ile Ser Asp  
 145 150 155 160  
 Ala Asp Lys Arg Lys His Phe Arg Leu Val Leu Arg Leu Val Leu Arg  
 165 170 175  
 Gly Gly Arg Glu Leu Gly Thr Phe His Ser Arg Leu Ile Lys Val Ile  
 180 185 190  
 Ser Lys Pro Ser Gln Lys Lys Gln Ser Leu Lys Asn Thr Asp Leu Cys  
 195 200 205  
 Ile Ser Ser Gly Ser Lys Val Ser Leu Phe Asn Arg Leu Arg Ser Gln  
 210 215 220  
 Thr Val Ser Thr Arg Tyr Leu Ser Val Glu Asp Gly Ala Phe Val Ala  
 225 230 235 240  
 Ser Ala Arg Gln Trp Ala Ala Phe Thr Leu His Leu Ala Asp Gly His  
 245 250 255  
 Ser Ala Gln Gly Asp Phe Pro Pro Arg Glu Gly Tyr Val Arg Tyr Gly  
 260 265 270  
 Ser Leu Val Gln Leu Val Cys Thr Val Thr Gly Ile Thr Leu Pro Pro  
 275 280 285  
 Met Ile Ile Arg Lys Val Ala Lys Gln Cys Ala Leu Leu Asp Val Asp  
 290 295 300  
 Glu Pro Ile Ser Gln Leu His Lys Cys Ala Phe Gln Phe Pro Gly Ser  
 305 310 315 320  
 Pro Pro Gly Gly Gly Gly Thr Tyr Leu Cys Leu Ala Thr Glu Lys Val  
 325 330 335  
 Val Gln Phe Gln Ala Ser Pro Cys Pro Lys Glu Ala Asn Arg Ala Leu  
 340 345 350  
 Leu Asn Asp Ser Ser Cys Trp Thr Ile Ile Gly Thr Glu Ser Val Glu  
 355 360 365  
 Phe Ser Phe Ser Thr Ser Leu Ala Cys Thr Leu Glu Pro Val Thr Pro  
 370 375 380  
 Val Pro Leu Ile Ser Thr Leu Glu Leu Ser Gly Gly Asp Val Ala  
 385 390 395 400  
 Thr Leu Glu Leu His Gly Glu Asn Phe His Ala Gly Leu Lys Val Trp  
 405 410 415  
 Phe Gly Asp Val Glu Ala Glu Thr Met Tyr Arg Tyr Gly Val Xaa Ser  
 420 425 430  
 Pro Arg Ser Leu Val Cys Val Val Pro Asp Val Ala Ala Phe Cys Ser  
 435 440 445  
 Asp Trp Arg Trp Leu Arg Ala Pro Ile Thr Ile Pro Met Ser Leu Val

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      450              455              460
Arg Ala Asp Gly Leu Phe Tyr Pro Ser Ala Phe Ser Phe Thr Tyr Thr
465              470              475              480
Pro Glu Tyr Ser Val Arg Pro Gly His Pro Gly Val Pro Glu Pro Ala
      485              490              495
Thr Asp Ala Asp Ala Leu Leu Glu Ser Ile His Gln Glu Phe Thr Arg
      500              505              510
Thr Asn Phe His Leu Phe Ile Gln Thr
      515              520

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<210> 5167
<211> 878
<212> DNA
<213> Homo sapiens

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<400> 5167
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120
ttggactgtg tgtctgcagac acaatatccc aggtctatga gaattgtcaat acagacttca
180
cgtgggaaat ggtgaggcaa taaggatcgt ttcccttgat gaaatggagc ttgcagaaga
240
aggcagggtc agttgtgggg agctctgggt ggaggtggag ggagtgcaat ccaagctgag
300
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360
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420
gccttgggtt ccccaaatgt cacatgggca cagtaacacc catgtcctag ggttgaagat
480
ggcatgatat gatgtatgta aaatgcttgg cacaagggtt ctcaccgaag tctggaggag
540
ctgtccaggg ttctggagac gaaacggagc ccgctgggaa ctgtcctgag ccccggtgct
600
gaaacagatc gcggttctct tctcggacct ccgagaggc gctgtccgga tatttgggtg
660
tcccaagcag tcagccctgc tgggtctctgc ttccagacc gtcaaaacttc gccatctctg
720
tccctttttg ggaaaatgct catgcgccaa cctgcaaacc agcctcattc ccggcatccc
780
acgtccctca gaccacccct cctccacgc agctgcggga ctccccctct gtgtgcctca
840
cctgcttcca gtcttgttgg cagatgcagg tgtcccg
878

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<210> 5168
<211> 199
<212> PRT
<213> Homo sapiens

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<400> 5168
Met Pro Gly Met Arg Leu Val Cys Arg Leu Ala His Gly His Phe Pro

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<210> 5170  
 <211> 203  
 <212> PRT  
 <213> Homo sapiens

<400> 5170  
 Thr Gly Gly Phe Ala Leu Tyr Pro Leu Leu Asn Glu Ala Ala Pro Leu  
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 Ala Leu Gly Ala Gly Leu Val Pro Glu Leu Pro Pro Ser Arg Gly  
 20 25 30  
 Gly Leu Gly Glu Ala Leu Gly Ala Val Glu Leu Ser Leu Ser Glu Phe  
 35 40 45  
 Leu Leu Leu Phe Thr Thr Ala Gly Ile Tyr Val Asp Gly Ala Gly Arg  
 50 55 60  
 Lys Ser Arg Gly His Glu Leu Leu Trp Pro Ala Ala Pro Met Gly Trp  
 65 70 75 80  
 Gly Tyr Ala Ala Pro Tyr Leu Thr Val Phe Ser Glu Asn Ser Ile Asp  
 85 90 95  
 Val Phe Asp Val Arg Arg Ala Glu Trp Val Gln Thr Val Pro Leu Lys  
 100 105 110  
 Lys Val Arg Pro Leu Asn Pro Glu Gly Ser Leu Phe Leu Tyr Gly Thr  
 115 120 125  
 Glu Lys Val Arg Leu Thr Tyr Leu Arg Asn Gln Leu Ala Glu Lys Asp  
 130 135 140  
 Glu Phe Asp Ile Pro Asp Leu Thr Asp Asn Ser Arg Arg Gln Leu Phe  
 145 150 155 160  
 Leu Thr Lys Ser Lys Arg Arg Phe Phe Phe Arg Val Ser Glu Glu Gln  
 165 170 175  
 Gln Lys Gln Gln Arg Arg Glu Met Leu Lys Asp Pro Phe Val Arg Ser  
 180 185 190  
 Lys Leu Ile Ser Pro Pro Thr Asn Phe Asn His  
 195 200

<210> 5171  
 <211> 2060  
 <212> DNA  
 <213> Homo sapiens

<400> 5171  
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 ctctagtgtc tgactttgag atgcattata tttttaacac ataaatgagg ggatccatat  
 120  
 cacattcttt cttgtggacc accaaaattga aggcctttctt gtaattcaca agcagcagct  
 180  
 ctccagcatc tctccgtagc ctgggtgaag tcccagaagc tgggtgtgcat cattttccaa  
 240  
 ggtggcagag ctgcttgctc tgcagatcat tcctttgaga gaggagtaca agtgaagaaa  
 300  
 caaggaggca cttcctgtag gagcactgat gtgccttgct cacactcccc tctgagcttt  
 360  
 actggtgaaga gagctccgac tgaacatgct gagcagttga gcacttttcc atcagcaaca  
 420

acagcgagga tggaaatgga aaggaaccga actaaaatgc atttcccttt gcagggcaga  
480  
gagctaagct cttaggaata gtgttataga aataagcacc ctaacttcaa ttccctgaaaa  
540  
tggttggttaa tggagagaat tttggagttt cacttaatat ttcccatcgc gtgcgcataa  
600  
ataagtcttc aggcgcctct agaagagtcc cagcccaagg ctcgattaag gaccacactg  
660  
caggctctgag gctcactgct ctgagtcctg aacaccagag ccctgcagag agtgggtgata  
720  
acacatcatc tctgcaaaga ggaacctctc ccccgccgcg cacttcactc aggcctctac  
780  
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840  
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900  
gcgtggcaca tgaacaaacg tcatgacaaa gattctctga gtgaagttaa caccacgtat  
960  
tttacctttg caaaaaacaa actggcaccc tgagttctaa ctacggacgg acgatatactt  
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gaatactcaa gtgctagctt agcagctttg ttcagtccag atcagagctg ttaggtaaag  
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1260  
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1320  
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1380  
tttctccacc aatcatttca gttctattgc agtcctgggt ccatatgtcc cctgcaaatt  
1440  
gtgaaagtaa ttagtacaaa aatagcagcc tgctcctttt caatggcgaa actgtcggca  
1500  
ttagcagttt tgggtaagct ggcggtaacta taacacgtac tggaaaacctg ttccctcatca  
1560  
ccacctacca gattctggaa atgcccgtct ctagaaaaag atggcgtttg tgggtgtctt  
1620  
cttttgaaag gaacagtaat ttgtgtggat attgttaaag tgtttaaaga atattttgac  
1680  
aattaagttt acattttaca attgctttat tttttattaa aatagttgta tataaatatt  
1740  
accctatttc actgttgttc aagtaaatct aaaccttgta gacaagttag tcacctgata  
1800  
tgtatagaag ctgtgatata tagagtacat ttattgtgta aatgtttatg aatataattg  
1860  
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1920  
tttaaatggt ttttatgtaa tagaaatcac gcaaaaatag gaaggattta aaatatgtat  
1980  
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2040

aaaaaaaaa aaaaaaaaaa

2060

<210> 5172

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5172

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Met Leu Val Asn Gly Glu Asn Phe Gly Val Ser Leu Asn Ile Phe Pro
 1           5           10           15
Ser Val Ala Ile Asn Lys Ser Ser Gly Ala Pro Arg Arg Val Pro Ala
          20           25           30
Gln Gly Ser Ile Lys Asp His Thr Ala Gly Leu Arg Leu Thr Ala Leu
          35           40           45
Ser Pro Glu His Gln Ser Pro Ala Glu Ser Gly Asp Asn Thr Ser Ser
          50           55           60
Leu Gln Arg Gly Thr Ser Pro Pro Ala Ala Thr Ser Leu Arg Leu Leu
          65           70           75           80
Leu Ser Ser Lys Asp Ser Leu Gly Phe Lys Cys His Phe Pro Cys Phe
          85           90           95
Arg Asp Pro Gly Val Leu Ile Ala
          100

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<210> 5173

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5173

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120
tcacagtgtg acaggggagac aaatagacct gtcagtagat aacatgaaaa taattggact
180
atgtgctgca gacacaatat cccaggctta tgagaatgtc aatacagact tcacgtggga
240
aatggtgagg caataaggat cgtttccctt gatgaaatgg agcttgcaga agaaggcagg
300
gtcagttgtg gggagctctg gttggagggt gagggagtgc attccaagct ggaggagctg
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420
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480
caagcagtcg gccctgctgg ttctctgctt ccagaccggc aaacttcgcc gtctctgtcc
540
ctttctggga aaatggc
557

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<210> 5174

<211> 93

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5174

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Met Glu Leu Ala Glu Gly Arg Val Ser Cys Gly Glu Leu Trp Leu
 1              5              10              15
Glu Val Glu Gly Val His Ser Lys Leu Glu Leu Ser Arg Val Leu
              20              25              30
Glu Thr Lys Arg Ser Pro Leu Gly Thr Val Leu Ser Pro Gly Ala Glu
              35              40              45
Thr Asp Arg Gly Ser Leu Leu Gly Pro Pro Glu Lys Arg Cys Pro Asp
              50              55              60
Ile Trp Cys Ser Gln Ala Val Ser Pro Ala Gly Leu Cys Phe Pro Asp
65              70              75              80
Arg Gln Thr Ser Pro Ser Leu Ser Leu Ser Gly Lys Met
              85              90

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&lt;210&gt; 5175

&lt;211&gt; 272

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5175

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ccatggcagc tccagagacc aggtggagg gaaatcaccc cacgtcccg agcagagagc
60
ttcggagcca gccagcctca ctgtgcgtgg cccacaacag ctgtctccat gtgtcacgtg
120
agggtgtccc aacaccagggt agggcagcaa cgcccaagcc ctgcgccggc acagcctccc
180
agaggtcact gccatgccgc actgaccgga gagagggcag tggtagagagg tgcattgccac
240
cccaggcttg ttccgaaggc cennnnnncc nc
272

```

&lt;210&gt; 5176

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5176

```

Met Ala Ala Pro Glu Thr Arg Trp Arg Gly Asn His Pro Thr Leu Pro
 1              5              10              15
Ser Arg Glu Leu Arg Ser Gln Pro Ala Ser Leu Cys Val Ala His Asn
              20              25              30
Ser Cys Leu His Val Ser Arg Glu Gly Cys Pro Thr Pro Gly Arg Ala
              35              40              45
Ala Thr Pro Thr Pro Ser Pro Gly Thr Ala Ser Gln Arg Ser Leu Pro
              50              55              60
Cys Arg Thr Asp Arg Glu Gly Ser Gly Glu Arg Cys Met Pro Pro
65              70              75              80
Gln Ala Cys Ser Glu Gly Pro Xaa Xaa Xaa
              85              90

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&lt;210&gt; 5177

&lt;211&gt; 637

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5177

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&lt;210&gt; 5178

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5178

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Lys Glu Glu Gly Glu Leu Glu Asp Gly Glu Ile Ser Asp Asp Asp Asn
20           25           30
Asn Ser Gln Ile Arg Ser Arg Ser Ser Ser Ser Ser Gly Gly Gly
35           40           45
Leu Leu Pro Tyr Pro Arg Arg Arg Pro Pro His Ser Ala Arg Gly Gly
50           55           60
Gly Ser Gly Gly Gly Gly Gly Ser Ser Ser Ser Ser Ser Ser Ser Gln
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Gln Gln Leu Arg Asn Phe Ser Arg Ser Arg His Ala
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&lt;210&gt; 5179

&lt;211&gt; 1527

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5179

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1527

&lt;210&gt; 5180

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5180

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 Phe Asp Gly His Asp Ile Pro Tyr Asp Ala Met Trp Leu Asp Ile Glu  
 35 40 45  
 His Thr Glu Gly Lys Arg Tyr Phe Thr Trp Asp Lys Asn Arg Phe Pro  
 50 55 60  
 Asn Pro Lys Arg Met Gln Glu Leu Leu Arg Asn Lys Lys Arg Lys Leu  
 65 70 75 80  
 Val Val Ile Ser Asp Pro His Ile Lys Ile Glu Pro Asp Tyr Ser Val  
 85 90 95  
 Tyr Val Lys Ala Lys Asp Gln Gly Phe Phe Val Lys Asn Gln Glu Gly  
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 Glu Asp Phe Glu Gly Val Cys Trp Pro Gly Leu Ser Ser Tyr Leu Asp  
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 165 170 175  
 Ala Ile His His Gly Asn Trp Glu His Arg Glu Leu His Asn Ile Tyr  
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 Gly Phe Tyr His Gln Met Ala Thr Ala Glu Gly Leu Ile Lys Arg Ser  
 195 200 205  
 Lys Gly Lys Glu Arg Pro Phe Val Leu Thr Arg Ser Phe Phe Ala Gly  
 210 215 220  
 Ser Gln Lys Tyr Gly Ala Val Trp Thr Gly Asp Asn Thr Ala Glu Trp  
 225 230 235 240  
 Ser Asn Leu Lys Ile Ser Ile Pro Met Leu Leu Thr Leu Ser Ile Thr  
 245 250 255  
 Gly Ile Ser Phe Cys Gly Ala Asp Ile Gly Gly Phe Ile Gly Asn Pro  
 260 265 270  
 Glu Thr Glu Leu Leu Val Arg Trp Tyr Gln Ala Gly Ala Tyr Gln Pro  
 275 280 285  
 Phe Phe Arg Gly His Ala Thr Met Asn Thr Lys Arg Arg Glu Pro Trp  
 290 295 300  
 Leu Phe Gly Glu Glu His Thr Arg Leu Ile Arg Glu Ala Ile Arg Glu  
 305 310 315 320  
 Arg Tyr Gly Leu Leu Pro Tyr Trp Tyr Ser Leu Phe Tyr His Ala His  
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 Val Ala Ser Gln Pro Val Met Arg Pro Leu Trp Val Glu Phe Pro Asp  
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 355 360 365  
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 370 375 380  
 Phe Leu Pro Gly Ser Asn Glu Val Trp Tyr Asp Tyr Lys Thr Phe Ala  
 385 390 395 400  
 His Trp Glu Gly Gly Cys Thr Val Lys Ile Pro Val Ala Leu Asp Thr

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Val	Gly	Lys	Ser	Thr	Gly	Trp	Met	Thr	Glu	Ser	Ser				
	435					440									

&lt;210&gt; 5181

&lt;211&gt; 4961

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5181

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<211> 697

<212> PRT

<213> Homo sapiens

<400> 5182

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 Arg Arg Gly Leu Ser Ile Ser Gly Asn Gly Pro Cys Leu Gly Phe Arg  
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685

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<211> 2466  
<212> DNA  
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 ctgaaggatg gctgccatat tgggagacac catcatggtg gctaaaggcc ttgtcaagct  
 2280  
 gaccctctgc ctccgaggac ccctcaggga agaaggcctg gctgggttcc agtcctttcc  
 2340  
 tgtccgaggc caatgcagag cggatcgtgc gcacgctctg caaggtgcgt ggtgcggcac  
 2400  
 tcaagctggg ccagatgctg agcatccagg atgatgcctt tatcaacccc cacttggcta  
 2460  
 agatct  
 2466

&lt;210&gt; 5184

&lt;211&gt; 395

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5184

Pro Phe Leu Ser Glu Ala Asn Ala Glu Arg Ile Val Arg Thr Leu Cys  
 1 5 10 15  
 Lys Val Arg Gly Ala Ala Leu Lys Leu Gly Gln Met Leu Ser Ile Gln  
 20 25 30  
 Asp Asp Ala Phe Ile Asn Pro His Leu Ala Lys Ile Phe Glu Arg Val  
 35 40 45  
 Arg Gln Ser Ala Asp Phe Met Pro Leu Lys Gln Met Met Lys Thr Leu

50					55					60					
Asn	Asn	Asp	Leu	Gly	Pro	Asn	Trp	Arg	Asp	Lys	Leu	Glu	Tyr	Phe	Glu
65					70					75					80
Glu	Arg	Pro	Phe	Ala	Ala	Ala	Ser	Ile	Gly	Gln	Val	His	Leu	Ala	Arg
				85					90					95	
Met	Lys	Gly	Gly	Arg	Glu	Val	Ala	Met	Lys	Ile	Gln	Tyr	Pro	Gly	Val
				100					105					110	
Ala	Gln	Ser	Ile	Asn	Ser	Asp	Val	Asn	Asn	Leu	Met	Ala	Val	Leu	Asn
				115					120					125	
Met	Ser	Asn	Met	Leu	Pro	Glu	Gly	Leu	Phe	Pro	Glu	His	Leu	Ile	Asp
				130					135					140	
Val	Leu	Arg	Arg	Glu	Leu	Ala	Leu	Glu	Cys	Asp	Tyr	Gln	Arg	Glu	Ala
				145					150					155	160
Ala	Cys	Ala	Arg	Lys	Phe	Arg	Asp	Leu	Leu	Lys	Gly	His	Pro	Phe	Phe
				165					170					175	
Tyr	Val	Pro	Glu	Ile	Val	Asp	Glu	Leu	Cys	Ser	Pro	His	Val	Leu	Thr
				180					185					190	
Thr	Glu	Leu	Val	Ser	Gly	Phe	Pro	Leu	Asp	Gln	Ala	Glu	Gly	Leu	Ser
				195					200					205	
Gln	Glu	Ile	Arg	Asn	Glu	Ile	Cys	Tyr	Asn	Ile	Leu	Val	Leu	Cys	Leu
				210					215					220	
Arg	Glu	Leu	Phe	Glu	Phe	His	Phe	Met	Gln	Thr	Asp	Pro	Asn	Trp	Ser
				225					230					235	240
Asn	Phe	Phe	Tyr	Asp	Pro	Gln	Gln	His	Lys	Val	Ala	Leu	Leu	Asp	Phe
				245					250					255	
Gly	Ala	Thr	Arg	Glu	Tyr	Asp	Arg	Ser	Phe	Thr	Asp	Leu	Tyr	Ile	Gln
				260					265					270	
Ile	Ile	Arg	Ala	Ala	Ala	Asp	Arg	Asp	Arg	Glu	Thr	Val	Arg	Ala	Lys
				275					280					285	
Ser	Ile	Glu	Met	Lys	Phe	Leu	Thr	Gly	Tyr	Glu	Val	Lys	Val	Met	Glu
				290					295					300	
Asp	Ala	His	Leu	Asp	Ala	Ile	Leu	Ile	Leu	Gly	Glu	Ala	Phe	Ala	Ser
				305					310					315	320
Asp	Glu	Pro	Phe	Asp	Phe	Gly	Thr	Gln	Ser	Thr	Thr	Glu	Lys	Ile	His
				325					330					335	
Asn	Leu	Ile	Pro	Val	Met	Leu	Arg	His	Arg	Leu	Val	Pro	Pro	Pro	Glu
				340					345					350	
Glu	Thr	Tyr	Ser	Leu	His	Arg	Lys	Met	Gly	Gly	Ser	Phe	Leu	Ile	Cys
				355					360					365	
Ser	Lys	Leu	Lys	Ala	Arg	Phe	Pro	Cys	Lys	Ala	Met	Phe	Glu	Glu	Ala
				370					375					380	
Tyr	Ser	Asn	Tyr	Cys	Lys	Arg	Gln	Ala	Gln	Gln					
	</														

&lt;210&gt; 5185

<211> 1657

<212> DNA

<213> Homo sapiens

<400> 5185

<400> 5185  
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60  
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120

cggattccca tgagaaactc tctggatcta gttcctctac gtcacatgag tgtgcaaaca  
180  
ggagactaca agagtttaaa aatactggga ctgctggaga tttccctggc catatatagt  
240  
tcacttggtt cacagatctc actctgtcac ccagggtgga gtacagtggg cgcactctca  
300  
cttactgcaa cctccgcctc cgggttcaag cgattcgctt gcctctgcct tagctatgtc  
360  
cctttcagaa aaattctact tcaagagaag atttggtttc aggatgtctc ctggactgga  
420  
gggcatgtac cttagtccc acgaactggc tgggtatata gaaatgtcca gaggccggag  
480  
agcgtttcag atcacatgta ccggtaggca gttatggcta tgggtatcaa agatgaccgt  
540  
cttaacaaag acncggaagc tatgaagcag ataaccagc tctaccaga ggacctcaga  
600  
aaggagctct atgaactttg ggaagagtac gagaccaat ctagtgcaga agccaaattt  
660  
gtgaagcagc tagaccaatg tgaatgatt cttcaagcat ctgaatatga agaccttgaa  
720  
cacaaacctg ggagactgca agacttctat gattccacag cagggaaaatt caatcacctt  
780  
gagatagtc agctgttttc tgaacttgag gcagaaagaa gcaactaacat agctgcagct  
840  
gccagtgage cacactctg agacactctc taaattgctg cactcctgta acaaacatta  
900  
tttttccatt tcattgtatt gtgttttgcc attgttggtc tgttgatttc cctagatgtg  
960  
agtctgtttg ttttcaattg tctgaacttc agcaagaaat gtgatacaac ttgggcca  
1020  
aaagaagcca cagaacagga agcgggtcatg aaagtgccat ggatgaacac tggagggtggc  
1080  
agtgcctgtt tatgaactaa ataaataaat attaaacacc taaaatatta gaatatttt  
1140  
tggagattta aaatcatctt attctgactt aattaccgat atccccgaag gctaggttca  
1200  
ttgaataata gaaaatttca ttatgattgc ttttaagaac agattcttca gctgatttag  
1260  
tgataagaat ccagaaaaga aaatgtacta gtgatgtatt ctctcccccag atgaaattgc  
1320  
tgcccttatte agatttactc tcttgagcca gattttgaaat ttactgcag actgcttcag  
1380  
acttctaate ataggcttgt aaacctacta ataggctctg cccctcttcc caatactttt  
1440  
tgtcatttag agatataaac cggggcatat aaaaatgcaa cttgtattcc tttgtatatt  
1500  
tttccctgtc tgacttataa atcttgagac ctttattgta aaagcattta tcactcagggt  
1560  
agaaaataaa ataggaactg ggggtcattga gcctcaggta gggaatatat caaccgcatt  
1620  
tcttctctc ttttcccttt tataggataa ataattcc  
1657

<211> 243  
 <212> PRT  
 <213> Homo sapiens

<400> 5186

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Met Arg Asn Ser Leu Asp Leu Val Pro Leu Arg His Met Ser Val Gln
 1           5           10           15
Thr Gly Asp Tyr Lys Ser Leu Lys Ile Leu Gly Leu Leu Glu Ile Ser
 20           25           30
Leu Ala Ile Tyr Ser Ser Leu Val Ser Gln Ile Ser Leu Cys His Pro
 35           40           45
Gly Trp Ser Thr Val Val Arg Ser Gln Leu Thr Ala Thr Ser Ala Ser
 50           55           60
Arg Phe Lys Arg Phe Ala Cys Leu Cys Leu Ser Tyr Val Pro Phe Arg
 65           70           75           80
Lys Ile Leu Leu Gln Glu Lys Ile Trp Phe Gln Asp Val Ser Trp Thr
 85           90           95
Gly Gly His Val Pro Arg Val Pro Arg Thr Gly Trp Val Tyr Arg Asn
100           105           110
Val Gln Arg Pro Glu Ser Val Ser Asp His Met Tyr Arg Met Ala Val
115           120           125
Met Ala Met Val Ile Lys Asp Asp Arg Leu Asn Lys Asp Xaa Glu Ala
130           135           140
Met Lys Gln Ile Thr Gln Leu Leu Pro Glu Asp Leu Arg Lys Glu Leu
145           150           155           160
Tyr Glu Leu Trp Glu Glu Tyr Glu Thr Gln Ser Ser Ala Glu Ala Lys
165           170           175
Phe Val Lys Gln Leu Asp Gln Cys Glu Met Ile Leu Gln Ala Ser Glu
180           185           190
Tyr Glu Asp Leu Glu His Lys Pro Gly Arg Leu Gln Asp Phe Tyr Asp
195           200           205
Ser Thr Ala Gly Lys Phe Asn His Pro Glu Ile Val Gln Leu Val Ser
210           215           220
Glu Leu Glu Ala Glu Arg Ser Thr Asn Ile Ala Ala Ala Ala Ser Glu
225           230           235           240
Pro His Ser
```

<210> 5187  
 <211> 1712  
 <212> DNA  
 <213> Homo sapiens

<400> 5187

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 60
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120
cccgaaggaa gcaccatgat ttcggccgcg cagttgttgg atgagttaat gggccgggac
180
cgaaacctag ccccggaaga gaagcgacgc aacgtgcggt gggaccacga gacggtttgt
240
aaatattatc tctgtggttt ttgtcctgcg gaattgttca caaatcacg ttctgatctt
300
```

```

ggctcgtgtg aaaaaattca tgatgaaaat ctacgaaaac agtatgagaa gagctctcgt
360
ttcatgaaag ttggctatga gagagatttt ttgcgatact tacagagctt acttgacagaa
420
gtagaacgta ggatcagacg aggccatgct cgtttggcat tatctcaaaa ccagcagctt
480
tctggggcgc ctggcccaac agggcaaaaat gaagaaaaaa ttcaggttct aacagacaaa
540
attgatgtac ttctgcaaca gattgaagaa ttagggctcg aaggaaaagt agaagaagcc
600
caggggatga tgaattagtg tgagcaatta aaagaagaga gagaactgct aaggtccaca
660
acgtcgacaa ttgaaagctt tgctgcacaa gaaaaacaaa tggaagtgtg tgaagtatgt
720
ggagcctttt taatagtagg agatgcccg tcccgggtag atgaccattt gatgggaaaa
780
caacacatgg gctatgcaa aattaaagct actgtagaag aattaaaga aaagttaagg
840
aaaagaaccg aagaacctga tcgtgatgag cgtctaaaaa aggagaagca agaagagaa
900
gaaagagaaa aagaacggga gagagaaagg gaagaagag aaaggaaaag acgaagggaa
960
gaggaagaaa gagaaaaaga aagggtcgtg gacagagaaa gaagaagag aagtcgttca
1020
cgaagtagac actcaagccg aacatcagac agaagatgca gcaggctcgc ggaccacaaa
1080
aggtcacgaa gtatagaaa aaggcggagc agaagtagag atcgacgaag aagcagaagc
1140
catgatcgat cagaagaaa acacagatct cgaagtcggg atcgaagaag atcaaaaaagc
1200
cgggatcgaa agtcatataa gcacaggagc aaaagtcggg acagagaaca agatagaaaa
1260
tccaaggaga aagaaaagag gggatctgat gataaaaaaa gtagtgtgaa gtccggtagt
1320
cgagaaaagc agagtgaaga cacaacact gaatcgaagg aaagtgtac taagaatgag
1380
gtcaatggga ccagtgaaga cattaatctc gaagtgcagc gtaagtatgc acagatgaag
1440
atggaactaa gccgagtaag aagacataca aaagcctctt ctgaaggaaa agacagtgtg
1500
gtcctgcaaa acatttttag gtacattgtt ttgtctcagc tattttgtag cagactcgtg
1560
ccccattag tgtgcctctt tggaaattat cggccacatt tgtaatatag tcgccattga
1620
aaagttaatt atcctttttt tagggatttt gatgtcgttt cttttttttt ttaatacaaa
1680
ggttgaactg tttttttttt ccttttttgg tt
1712

```

&lt;210&gt; 5188

&lt;211&gt; 489

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5188

```

Met Ile Ser Ala Ala Gln Leu Leu Asp Glu Leu Met Gly Arg Asp Arg
 1           5           10           15
Asn Leu Ala Pro Asp Glu Lys Arg Ser Asn Val Arg Trp Asp His Glu
 20           25           30
Ser Val Cys Lys Tyr Tyr Leu Cys Gly Phe Cys Pro Ala Glu Leu Phe
 35           40           45
Thr Asn Thr Arg Ser Asp Leu Gly Pro Cys Glu Lys Ile His Asp Glu
 50           55           60
Asn Leu Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly
 65           70           75           80
Tyr Glu Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val
 85           90           95
Glu Arg Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn
100           105           110
Gln Gln Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Glu Glu Lys
115           120           125
Ile Gln Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu
130           135           140
Glu Leu Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys
145           150           155           160
Leu Val Glu Gln Leu Lys Glu Glu Arg Glu Leu Leu Arg Ser Thr Thr
165           170           175
Ser Thr Ile Glu Ser Phe Ala Ala Gln Glu Lys Gln Met Glu Val Cys
180           185           190
Glu Val Cys Gly Ala Phe Leu Ile Val Gly Asp Ala Gln Ser Arg Val
195           200           205
Asp Asp His Leu Met Gly Lys Gln His Met Gly Tyr Ala Lys Ile Lys
210           215           220
Ala Thr Val Glu Glu Leu Lys Glu Lys Leu Arg Lys Arg Thr Glu Glu
225           230           235           240
Pro Asp Arg Asp Glu Arg Leu Lys Lys Glu Lys Gln Glu Arg Glu Glu
245           250           255
Arg Glu Lys Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Lys Arg
260           265           270
Arg Arg Glu Glu Glu Arg Glu Lys Glu Arg Ala Arg Asp Arg Glu
275           280           285
Arg Arg Lys Arg Ser Arg Ser Arg Ser Arg His Ser Ser Arg Thr Ser
290           295           300
Asp Arg Arg Cys Ser Arg Ser Arg Asp His Lys Arg Ser Arg Ser Arg
305           310           315           320
Glu Arg Arg Arg Ser Arg Ser Arg Asp Arg Arg Arg Ser Arg Ser His
325           330           335
Asp Arg Ser Glu Arg Lys His Arg Ser Arg Ser Arg Asp Arg Arg Arg
340           345           350
Ser Lys Ser Arg Asp Arg Lys Ser Tyr Lys His Arg Ser Lys Ser Arg
355           360           365
Asp Arg Glu Gln Asp Arg Lys Ser Lys Glu Lys Glu Lys Arg Gly Ser
370           375           380
Asp Asp Lys Lys Ser Ser Val Lys Ser Gly Ser Arg Glu Lys Gln Ser
385           390           395           400
Glu Asp Thr Asn Thr Glu Ser Lys Glu Ser Asp Thr Lys Asn Glu Val
405           410           415
Asn Gly Thr Ser Glu Asp Ile Lys Ser Glu Val Gln Arg Lys Tyr Ala

```

```

          420          425          430
Gln Met Lys Met Glu Leu Ser Arg Val Arg Arg His Thr Lys Ala Ser
          435          440          445
Ser Glu Gly Lys Asp Ser Val Val Leu Gln Asn Ile Leu Arg Tyr Ile
          450          455          460
Val Leu Ser Gln Leu Phe Cys Ser Arg Leu Val Pro Pro Leu Val Cys
          465          470          475          480
Leu Phe Gly Asn Tyr Arg Pro His Leu
          485

```

<210> 5189  
 <211> 323  
 <212> DNA  
 <213> Homo sapiens

```

<400> 5189
acgcgtgaag ggattacagg catgagccac tgcacctggc caggagaaa tgtttttata
60
acgtatgaca aatgcttgag taattcctgg cttgaaagtg ggctcacaa aaataactgg
120
aatccaaaaa taacaaaatg tttagcaatt caggtaatgt caagcagat tcaaacacat
180
gaagttaatc attccttaat tcctgtttat ttatatattca tttttgcttt ctttttactc
240
catgtgttat tcttacagaa gtcacaagtt aaatgttttt ggggaacttt gggggggggg
300
gacaaacatc catgtgctgc taa
323

```

<210> 5190  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

```

<400> 5190
Met Ser His Cys Thr Trp Pro Gly Glu Ile Val Phe Ile Thr Tyr Asp
1          5          10          15
Lys Cys Leu Ser Asn Ser Trp Leu Glu Ser Gly Leu Thr Ile Asn Asn
20          25          30
Trp Asn Pro Lys Ile Thr Lys Cys Leu Ala Ile Gln Val Met Ser Ser
35          40          45
Ser Ile Gln Thr His Glu Val Asn His Ser Leu Ile Pro Val Tyr Leu
50          55          60
Tyr Phe Ile Phe Ala Phe Phe Leu Leu His Val Leu Phe Leu Gln Lys
65          70          75          80
Ser Gln Val Lys Cys Phe Trp Gly Thr Leu Gly Gly Gly Asp Lys His
85          90          95
Pro Cys Ala Ala
100

```

<210> 5191  
 <211> 1632  
 <212> DNA  
 <213> Homo sapiens

<400> 5191  
tccccgattt tagaggtgac tggagaactc tcacgtaggc ggccgcccc atttcccgcc  
60  
cgggtcatcg gggagccctt tcccaagccc cgcaaacacc tgcattgcaa gaggcaggct  
120  
tccttctgac agcagataac atgtcgctcg cggcgtcagc aagaggcgca tgcgectgce  
180  
cgtgggagcg cgggtgcgca ggactggaac gcggttctc cttcttcccc gcccccccc  
240  
gcttcggcg gaagcggcct caacaaggga aactttattg ttccccgtgg gcagtcgagg  
300  
atgtcgggta attacgcggc ggggctgtcg cgtacgcgg acaagggcaa gtgcggcctc  
360  
ccggagatct tcgaccccc ggaggagctg gagcggaagg tgtgggaact ggcgaggctg  
420  
gtctggcagt cttccagtgt ggtgttccac acgggtgccg gcatcagcac tgcccttgcc  
480  
atccccgact tcaggggtcc ccacggagtc tggaccatgg aggagcgagg tctggcccc  
540  
aagttcgcaca ccacctttga gagcgcgcgg ccacgcaga cccacatggc gctggtgcag  
600  
ctggagcgcg tgggcctcct ccgcttctcg gtcagccaga acgtggacgg gctccatgtg  
660  
cgctcaggct tccccaggga caaactggca gagctccacg ggaacatgtt tgtggaagaa  
720  
tgtgccaagt gtaagacgca gtacgtccga gacacagtcg tgggaccatg gggcctgaag  
780  
gccacggggc ggctctgcac cgtggctaag gcaagggggc tgcgagcctg caggggaggc  
840  
tgcgaggccc ctgaggactc tctcagctt cctcattgca ggggagagct gagggaaccc  
900  
atcctagact gggaggactc cctgcccgc cgggacctgg cactcgccga tgagggcagc  
960  
aggaaacgcg acctgtccat cacgctgggt acatcgctgc agatccggcc cagcgggaac  
1020  
ctgccgtggt ctaccaagcg ccggggaggc cgcctgtgca tcgtcaacct cgagcccc  
1080  
aagcacgacc gccatgtgta cctccgcac catggctacg ttgacagagt catgaccggg  
1140  
ctcatgaagc acctggggct ggagatcccc gcctgggacg gccccctgtg gctggagagg  
1200  
gcgctgccac cctgccccg cccgcccacc cccaagctgg agcccaagga ggaatctccc  
1260  
accgggatca acggctctat ccccgccggc cccaagcagg agccctgcgc ccagcacaac  
1320  
ggctcagagc ccgcagcccc caaacgggag cggcccacca gccctgcccc ccacagacc  
1380  
cccaaaaggg ggctctggt gcggttcggg gaagaagcca cccccagag gtgacagctg  
1440  
agccccctgc acacccccgc ctctgacttg ctgtgtgtgc cagaggtgag gctggggcct  
1500  
ccctggtctc cagcttaaac aggagtgaac tcctctgtc cccagggcct cctctctggg  
1560

ccccctacag cccaccctac ccctcctcca tgggcctgc aggaggggag acccacttg  
1620

aagtggggga tc

1632

<210> 5192

<211> 377

<212> PRT

<213> Homo sapiens

<400> 5192

Met Ser Val Asn Tyr Ala Ala Gly Leu Ser Pro Tyr Ala Asp Lys Gly  
1 5 10 15  
Lys Cys Gly Leu Pro Glu Ile Phe Asp Pro Pro Glu Glu Leu Glu Arg  
20 25 30  
Lys Val Trp Glu Leu Ala Arg Leu Val Trp Gln Ser Ser Val Val  
35 40 45  
Phe His Thr Gly Ala Gly Ile Ser Thr Ala Ser Gly Ile Pro Asp Phe  
50 55 60  
Arg Gly Pro His Gly Val Trp Thr Met Glu Glu Arg Gly Leu Ala Pro  
65 70 75 80  
Lys Phe Asp Thr Thr Phe Glu Ser Ala Arg Pro Thr Gln Thr His Met  
85 90 95  
Ala Leu Val Gln Leu Glu Arg Val Gly Leu Leu Arg Phe Leu Val Ser  
100 105 110  
Gln Asn Val Asp Gly Leu His Val Arg Ser Gly Phe Pro Arg Asp Lys  
115 120 125  
Leu Ala Glu Leu His Gly Asn Met Phe Val Glu Glu Cys Ala Lys Cys  
130 135 140  
Lys Thr Gln Tyr Val Arg Asp Thr Val Val Gly Thr Met Gly Leu Lys  
145 150 155 160  
Ala Thr Gly Arg Leu Cys Thr Val Ala Lys Ala Arg Gly Leu Arg Ala  
165 170 175  
Cys Arg Gly Gly Cys Glu Ala Pro Glu Asp Ser Pro Gln Leu Pro His  
180 185 190  
Cys Arg Gly Glu Leu Arg Asp Thr Ile Leu Asp Trp Glu Asp Ser Leu  
195 200 205  
Pro Asp Arg Asp Leu Ala Leu Ala Asp Glu Ala Ser Arg Asn Ala Asp  
210 215 220  
Leu Ser Ile Thr Leu Gly Thr Ser Leu Gln Ile Arg Pro Ser Gly Asn  
225 230 235 240  
Leu Pro Leu Ala Thr Lys Arg Arg Gly Gly Arg Leu Val Ile Val Asn  
245 250 255  
Leu Gln Pro Thr Lys His Asp Arg His Ala Asp Leu Arg Ile His Gly  
260 265 270  
Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu  
275 280 285  
Ile Pro Ala Trp Asp Gly Pro Arg Val Leu Glu Arg Ala Leu Pro Pro  
290 295 300  
Leu Pro Arg Pro Pro Thr Pro Lys Leu Glu Pro Lys Glu Glu Ser Pro  
305 310 315 320  
Thr Arg Ile Asn Gly Ser Ile Pro Ala Gly Pro Lys Gln Glu Pro Cys  
325 330 335  
Ala Gln His Asn Gly Ser Glu Pro Ala Ser Pro Lys Arg Glu Arg Pro

```

          340          345          350
Thr Ser Pro Ala Pro His Arg Pro Pro Lys Arg Gly Pro Leu Val Arg
          355          360          365
Phe Arg Glu Glu Ala Thr Pro Gln Arg
          370          375

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<210> 5193  
 <211> 554  
 <212> DNA  
 <213> Homo sapiens

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<400> 5193
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120
cagcagctct gtgtcccggc atggccaactg tggggcagag acacagcagg tccacatct
180
ctgtgccctg cagaccctgc agccctgggg atgctgggtc gggacggacc cctagatatc
240
acacagccga gaggtaggtc agcgctttaa gatgctgata ccgctggttc agctcctgga
300
gcagaattct cagggtaggt ttccagcaac gcctcctggg agggtcagca ggggctgggg
360
tccgtggggg ggtctccggg aggtttgcct gtgtcaggcc tgtgtgctt ctggcggagg
420
cgcttggtcca gcctcatcca gcctgggtgc tccggtgcc cgcgctaaca ctttcagtgc
480
acgctcggga acgcgcctgg aaggccctgc cctgccccgc ccagggtcc agccagatgc
540
tgccagcacc cggg
554

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<210> 5194  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

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<400> 5194
Met Leu Ile Pro Leu Val Gln Leu Leu Glu Asn Ser Gln Gly Gly
1          5          10          15
Phe Pro Ala Thr Pro Pro Gly Arg Val Ser Arg Gly Trp Gly Pro Trp
          20          25          30
Gly Gly Leu Arg Glu Val Cys Leu Cys Gln Ala Cys Ala Ala Ser Gly
          35          40          45
Gly Gly Ala Cys Pro Ala Ser Ser Ser Leu Val Ser Pro Val Pro Arg
          50          55          60
Ala Asn Thr Phe Ser Ala Arg Ser Gly Thr Arg Leu Glu Gly Pro Ala
65          70          75          80
Leu Pro Arg Pro Arg Leu Gln Pro Asp Ala Ala Ser Thr Arg
          85          90

```

<210> 5195  
 <211> 964

<212> DNA  
 <213> Homo sapiens

<400> 5195  
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Leu Phe Glu Ala Ala Gly Asp Ile Phe Phe Asp Gly Ala Trp Glu Arg
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Glu Lys Ala Val Ser Phe Tyr Arg Asp Arg Ala Leu Pro Leu Ala Val
      130          135          140
Thr Thr Gly Asn Arg Lys Ala Glu Leu Arg Leu Cys Asn Lys Leu Val
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Ala Leu Leu Ala Thr Leu Glu Glu Pro Gln Glu Gly Leu Glu Phe Ala
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His Met Ala Leu Ala Leu Ser Ile Thr Leu Gly Asp Arg Leu Asn Glu
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Arg Val Ala Tyr His Arg Leu Ala Ala Leu Gln His Arg Leu Gly His
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Gly Glu Leu Ala Glu His Phe Tyr Leu Lys Ala Leu Ser Leu Cys Asn
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&lt;211&gt; 1045

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5197

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<212> PRT

<213> Homo sapiens

<400> 5198

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355

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&lt;213&gt; Homo sapiens

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6104

&lt;210&gt; 5202

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5202

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Ser Pro Gly Pro Arg Gly Leu Pro Glu Gly Pro Gln Ala Leu Gly Arg
 1              5              10              15
Val Ala Val Gly Gly Gln Val His Cys Pro Glu Val Leu Ser Ala Leu
      20              25              30
Ser Gln Gly Ser Leu Glu Arg Gly Leu Ala Gly Leu Gly Gly His Arg
      35              40              45
Pro His Ser Gly Leu Pro Ala Gln Gly Arg Arg Pro Glu Pro Val Trp
      50              55              60
Pro Cys Ser Pro Gly Gln Ser Trp Ala Cys Arg Val Phe Leu Pro Gly
65              70              75              80
Arg Cys Arg Cys Trp Pro Ser Ala Gly Gly Arg Arg Trp Glu Ser Trp
      85              90              95
Ile Phe Cys Phe Phe Leu Ser Phe Phe Phe Leu Arg
      100              105

```

&lt;210&gt; 5203

&lt;211&gt; 1863

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5203

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gaaaatttgg tagaaaaaga gataagtgga tctaaagtca cttgtagaga tctttagtaa
60
tattttaagg cttacatcaa aatctatcaa ggagaagaac ttccacatcc aaagtccatg
120
cttcaggcaa cagctgaagc taataatctt gctgcagtag caggagcaag agatacctat
180
tgtaaaaagta tggaacaggt atgtggaggg gacaagcctt acattgcacc ttcagatctg
240
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360
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420
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480
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600
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720
tctcatcatg ccagattaaa gacagactga cagttcatct cctcacggac tccactctct
780
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840
caactgtaga agtagtttag tgtaactggc ttcacagatg gctgccacag agtgtgaaga
900

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 1020  
 ctaatgttag tgaatttgc ttagtgtaaaa ggatatttca gggaaatatt ttcagaaatc  
 1080  
 tatttagagt ctctttaaca cagtgtccca ttgaaatttt aatttttaga gaatttatga  
 1140  
 atcaactgttt caagaaccag attggaaaga caatgaagcc tttattgagc cactacatta  
 1200  
 aaagtatata ttgctttact gccttcaata ccagtattac atcaatgcac gtatcagaaa  
 1260  
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 1320  
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 1380  
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 1440  
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 1500  
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 1560  
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 1680  
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 1740  
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 1860  
 aaa  
 1863

<210> 5204

<211> 249

<212> PRT

<213> Homo sapiens

<400> 5204

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Asp	Leu	Val	Glu	Tyr	Phe	Lys	Ala	Tyr	Ile	Lys	Ile	Tyr	Gln	Gly	Glu
	20						25					30			
Glu	Leu	Pro	His	Pro	Lys	Ser	Met	Leu	Gln	Ala	Thr	Ala	Glu	Ala	Asn
	35						40					45			
Asn	Leu	Ala	Ala	Val	Ala	Gly	Ala	Arg	Asp	Thr	Tyr	Cys	Lys	Ser	Met
	50				55					60					
Glu	Gln	Val	Cys	Gly	Gly	Asp	Lys	Pro	Tyr	Ile	Ala	Pro	Ser	Asp	Leu
65				70						75				80	
Glu	Arg	Lys	His	Leu	Asp	Leu	Lys	Glu	Val	Ala	Ile	Lys	Gln	Phe	Arg
			85					90					95		
Ser	Val	Lys	Lys	Met	Gly	Gly	Asp	Glu	Phe	Cys	Arg	Arg	Tyr	Gln	Asp

	100		105		110										
Gln	Leu	Glu	Ala	Glu	Ile	Glu	Glu	Thr	Tyr	Ala	Asn	Phe	Ile	Lys	His
	115		120		125										
Asn	Asp	Gly	Lys	Asn	Ile	Phe	Tyr	Ala	Ala	Arg	Thr	Pro	Ala	Thr	Leu
	130		135		140										
Phe	Ala	Val	Met	Phe	Ala	Met	Tyr	Ile	Ile	Ser	Gly	Leu	Thr	Gly	Phe
	145		150		155										160
Ile	Gly	Leu	Asn	Ser	Ile	Ala	Val	Leu	Cys	Asn	Leu	Val	Met	Gly	Leu
			165		170										175
Ala	Leu	Ile	Phe	Leu	Cys	Thr	Trp	Ala	Tyr	Val	Lys	Tyr	Ser	Gly	Glu
			180		185										190
Phe	Arg	Glu	Ile	Gly	Thr	Val	Ile	Asp	Gln	Ile	Ala	Glu	Thr	Leu	Trp
	195				200										205
Glu	Gln	Val	Leu	Lys	Pro	Leu	Gly	Asp	Asn	Leu	Met	Glu	Glu	Asn	Ile
	210				215										220
Arg	Gln	Ser	Val	Thr	Asn	Ser	Ile	Lys	Ala	Gly	Leu	Thr	Asp	Gln	Val
	225				230					235					240
Ser	His	His	Ala	Arg	Leu	Lys	Thr	Asp							
			245												

&lt;210&gt; 5205

&lt;211&gt; 2011

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5205

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 ctttcttgac attccctggc ttctgtgctc tcttccccag gccaccccag cagacatggt  
 120  
 gccaaaggcct ttcgggtcaa gtccaacacg gccatcaagg ggtcggacag gagaagcctt  
 180  
 cgagctgatg tgacaactgc ttccccacc cttggaactg atcaagtctc tgagttagta  
 240  
 cctggaagg aggagctcaa cattgtgaag ttgtatgctc acaaagggga tgcaagtact  
 300  
 gtgtacgtga gtgggtggtaa ccccatcctc ttggaactgg agaaaaatct gtatccaaca  
 360  
 gtgtacacgc tgtgtgctta tctgtatctt ctgccaacct ttacaacatg gcctctgggtg  
 420  
 ctcgagaaac tggtaggggg agcagatttg atgctgcctg gactggtgat gccccctgct  
 480  
 ggtctgcctc aggtacagaa gggcgacctc tgtgccattt ctttgggtgg gaacagagcc  
 540  
 cctgtagcca ttggagtgc agccatgtcc acagctgaga tgctcacgct aggcctgaag  
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 660  
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 720  
 gggctctgctc agatggactc caccctgcag ggagacatga ggcacatgac cctggagggg  
 780  
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 840

gaagacacca gcaccagggg cctgaaccaa gactccacag atagcaaaac gcttcaagaa  
 900  
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 960  
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 1020  
 gaangacgac aactggacat aaagaagtca agctacaaaa agctctctaa gttcctgcag  
 1080  
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 1800  
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 1860  
 aagaagtgc agactctttt gtctcacgtg gtggatccgg tggaaatcca agctctgggc  
 1920  
 tggtaatttt tatgagcatt ttcagctttt gcaaatacaa aatataattc ttacaaaaa  
 1980  
 taaattttta ttctgatcta aaaaaaaaaa a  
 2011

&lt;210&gt; 5206

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5206

His Ser Leu Ala Ser Val Leu Ser Ser Pro Gly His Pro Ser Arg His  
 1 5 10 15  
 Val Ala Lys Ala Phe Arg Val Lys Ser Asn Thr Ala Ile Lys Gly Ser  
 20 25 30  
 Asp Arg Arg Lys Leu Arg Ala Asp Val Thr Thr Ala Phe Pro Thr Leu  
 35 40 45  
 Gly Thr Asp Gln Val Ser Glu Leu Val Pro Gly Lys Glu Glu Leu Asn

```

      50              55              60
Ile Val Lys Leu Tyr Ala His Lys Gly Asp Ala Val Thr Val Tyr Val
65              70              75              80
Ser Gly Gly Asn Pro Ile Leu Phe Glu Leu Glu Lys Asn Leu Tyr Pro
      85              90              95
Thr Val Tyr Thr Leu Trp Ser Tyr Pro Asp Leu Leu Pro Thr Phe Thr
      100              105              110
Thr Trp Pro Leu Val Leu Glu Lys Leu Val Gly Gly Ala Asp Leu Met
      115              120              125
Leu Pro Gly Leu Val Met Pro Pro Ala Gly Leu Pro Gln Val Gln Lys
      130              135              140
Gly Asp Leu Cys Ala Ile Ser Leu Val Gly Asn Arg Ala Pro Val Ala
145              150              155              160
Ile Gly Val Ala Ala Met Ser Thr Ala Glu Met Leu Thr Ser Gly Leu
      165              170              175
Lys Gly Arg Gly Phe Ser Val Leu His Thr Tyr Gln Asp His Leu Trp
      180              185              190
Arg Ser Gly Asn Lys Ser Ser Pro Pro Ser Ile Ala Pro Leu Ala Leu
      195              200              205
Asp Ser Ala Asp Leu Ser Glu Glu Lys Gly Ser Val Gln Met Asp Ser
      210              215              220
Thr Leu Gln Gly Asp Met Arg His Met Thr Leu Glu Gly Glu Glu Glu
225              230              235              240
Asn Gly Glu Val His Gln Gly Thr
      245

```

&lt;210&gt; 5207

&lt;211&gt; 594

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5207

```

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120
ggaatatgca gcccggggga gccccagaca gcggcaagga cgagggtggcg gaggggggcg
180
ggaggcatgg tctccaccta cggggtggcc gtgctggggg cgcgaggtgt gggcaagagt
240
gccatcgtgc gccagtcttt gtacaacgag ttcagcgagg tctcgctccc caccaccgcc
300
cgccgccttt acctgcctgc tgtcgtcatg aacggccacg tgcacgacct ccagatcctc
360
gactttccac ccatcagcgc ctccctctgc aatacgtccc aggagtgggc agacacctgc
420
tgcaggggac tccggagtgt ccacgcctac atcctggtct acgacatctg ctgctttgac
480
agcttttgagt acgtcaagac catccgccag cagatcctgg agacgagggg gatcggaacc
540
tcagagacgc ccatcatcat cgtgggcaac aagcgggacc tgcagcgcgg acgc
594

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&lt;210&gt; 5208

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5208

```

Met Val Ser Thr Tyr Arg Val Ala Val Leu Gly Ala Arg Gly Val Gly
 1           5           10           15
Lys Ser Ala Ile Val Arg Gln Phe Leu Tyr Asn Glu Phe Ser Glu Val
      20           25           30
Cys Val Pro Thr Thr Ala Arg Arg Leu Tyr Leu Pro Ala Val Val Met
      35           40           45
Asn Gly His Val His Asp Leu Gln Ile Leu Asp Phe Pro Pro Ile Ser
      50           55           60
Ala Phe Pro Val Asn Thr Leu Gln Glu Trp Ala Asp Thr Cys Cys Arg
65           70           75           80
Gly Leu Arg Ser Val His Ala Tyr Ile Leu Val Tyr Asp Ile Cys Cys
      85           90           95
Phe Asp Ser Phe Glu Tyr Val Lys Thr Ile Arg Gln Gln Ile Leu Glu
      100          105          110
Thr Arg Val Ile Gly Thr Ser Glu Thr Pro Ile Ile Val Gly Asn
      115          120          125
Lys Arg Asp Leu Gln Arg Gly Arg
      130          135

```

&lt;210&gt; 5209

&lt;211&gt; 1592

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5209

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gtgcctgacc cttccaccgc ggccctgcta ctctggcct tgctgacct ctacgccctg
120
ctgagccggc tcactggctc ccgagcctct ggggcccaac tcgaggccaa ggtgcgaggg
180
ctggaacgcc aggtggagga gctgcgctgg cgccagaggc gagcgcccaa gggggcccgc
240
agtgtggagg aggagtgagc cggatgcccc acacaccgcc agtgtcatac caaagagctg
300
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360
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420
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480
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540
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600
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660
ttgctccttg gccaaatctc cagctccctt cttgttttcc tcatcctcct accctgtact
720

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cccacaaac catggtcctt taaggcacgc tcctgtcctc ctcattgccc agcagtaggg
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840
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1320
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1380
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1440
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1500
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1560
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
1592

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<210> 5210
<211> 85
<212> PRT
<213> Homo sapiens

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<400> 5210
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Leu Met Arg Ser Val Pro Asp Pro Ser Thr Arg Ala Leu Leu Leu
20 25 30
Ala Leu Leu Ile Leu Tyr Ala Leu Leu Ser Arg Leu Thr Gly Ser Arg
35 40 45
Ala Ser Gly Ala Gln Leu Glu Ala Lys Val Arg Gly Leu Glu Arg Gln
50 55 60
Val Glu Glu Leu Arg Trp Arg Gln Arg Arg Ala Lys Gly Ala Arg
65 70 75 80
Ser Val Glu Glu Glu
85

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<210> 5211
<211> 602
<212> DNA
<213> Homo sapiens

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<400> 5211  
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 120  
 gcacaggacc agacaacaag tttttaaaaa tgatgccaga gcattagaag cagccagaat  
 180  
 aaagataaat gaagaattca aaaataataa aagtgaact tcttctaaga aaatagaaga  
 240  
 gctaattgaaa atagggttctg atgttgaatt attactcaga acatctgtta tacaagggtat  
 300  
 tcacacagac cacaatacac tgaactgggt ccctaggaaa gaccttcttg tagaaaaatgt  
 360  
 gccatattgt gatgcaccaa ctcaagagca atgagtttct tagaatacaa caagtctttg  
 420  
 tactttttaa ctttaaaatc tacaactctg gcaaaagtcc tggaaatgca gacattttcc  
 480  
 ctgaactggc atattgaaaa tgaatgaatt acagaatagc ttcattattta aatttcctgt  
 540  
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 600  
 ag  
 602

<210> 5212  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 5212  
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 Thr Arg Gln Gln Val Phe Lys Asn Asp Ala Arg Ala Leu Glu Ala Ala  
 20 25 30  
 Arg Ile Lys Ile Asn Glu Glu Phe Lys Asn Asn Lys Ser Glu Thr Ser  
 35 40 45  
 Ser Lys Lys Ile Glu Glu Leu Met Lys Ile Gly Ser Asp Val Glu Leu  
 50 55 60  
 Leu Leu Arg Thr Ser Val Ile Gln Gly Ile His Thr Asp His Asn Thr  
 65 70 75 80  
 Leu Lys Leu Val Pro Arg Lys Asp Leu Leu Val Glu Asn Val Pro Tyr  
 85 90 95  
 Cys Asp Ala Pro Thr Gln Lys Gln  
 100

<210> 5213  
 <211> 4387  
 <212> DNA  
 <213> Homo sapiens

<400> 5213  
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120  
gagacgcaac tgcagagcat ttctgaagag gtggtgaaaa cggaggttat agaagaggct  
180  
tttcttgcca tgtttatgga tactcctgaa gatgagaaaa caaaactaat tagctgtttg  
240  
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660  
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720  
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780  
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900  
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960  
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1080  
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&lt;210&gt; 5214

&lt;211&gt; 1364

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5214

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 Val Ile Glu Glu Ala Phe Pro Gly Met Phe Met Asp Thr Pro Glu Asp  
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 Glu Lys Thr Lys Leu Ile Ser Cys Leu Gly Ala Phe Arg Gln Phe Trp  
 35 40 45  
 Gly Gly Leu Ser Gln Glu Ser His Glu Gln Cys Ile Gln Trp Ile Val  
 50 55 60  
 Lys Phe Ile His Gly Gln His Ser Pro Lys Arg Ile Ser Phe Leu Tyr

```

65          70          75          80
Asp Cys Leu Ala Met Ala Val Glu Thr Gly Leu Leu Pro Pro Arg Leu
      85          90          95
Val Cys Glu Ser Leu Ile Asn Ser Asp Thr Leu Glu Trp Glu Arg Thr
      100          105          110
Gln Leu Trp Ala Leu Thr Phe Lys Leu Val Arg Lys Ile Ile Gly Gly
      115          120          125
Val Asp Tyr Lys Gly Val Arg Asp Leu Leu Lys Val Ile Leu Glu Lys
      130          135          140
Ile Leu Thr Ile Pro Asn Thr Val Ser Ser Ala Val Val Gln Gln Leu
      145          150          155          160
Leu Ala Ala Arg Glu Val Ile Ala Tyr Ile Leu Glu Arg Asn Ala Cys
      165          170          175
Leu Leu Pro Ala Tyr Phe Ala Val Thr Glu Ile Arg Lys Leu Tyr Pro
      180          185          190
Glu Gly Lys Leu Pro His Trp Leu Leu Gly Asn Leu Val Ser Asp Phe
      195          200          205
Val Asp Thr Phe Arg Pro Thr Ala Arg Ile Asn Ser Ile Cys Gly Arg
      210          215          220
Cys Ser Leu Leu Pro Val Val Asn Asn Ser Gly Ala Ile Cys Asn Ser
      225          230          235          240
Trp Lys Leu Asp Pro Ala Thr Leu Arg Phe Pro Leu Lys Gly Leu Leu
      245          250          255
Pro Tyr Asp Lys Asp Leu Phe Glu Pro Gln Thr Ala Leu Leu Arg Tyr
      260          265          270
Val Leu Glu Gln Pro Tyr Ser Arg Asp Met Val Cys Asn Met Leu Gly
      275          280          285
Leu Asn Lys Gln His Lys Gln Arg Cys Pro Val Leu Glu Asp Gln Leu
      290          295          300
Val Asp Leu Val Val Tyr Ala Met Glu Arg Ser Glu Thr Glu Glu Lys
      305          310          315          320
Phe Asp Asp Gly Gly Thr Ser Gln Leu Leu Trp Gln His Leu Ser Ser
      325          330          335
Gln Leu Ile Phe Phe Val Leu Phe Gln Phe Ala Ser Phe Pro His Met
      340          345          350
Val Leu Ser Leu His Gln Lys Leu Ala Gly Arg Gly Leu Ile Lys Gly
      355          360          365
Arg Asp His Leu Met Trp Val Leu Leu Gln Phe Ile Ser Gly Ser Ile
      370          375          380
Gln Lys Asn Ala Leu Ala Asp Phe Leu Pro Val Met Lys Leu Phe Asp
      385          390          395          400
Leu Leu Tyr Pro Glu Lys Glu Tyr Ile Pro Val Pro Asp Ile Asn Lys
      405          410          415
Pro Gln Ser Thr His Ala Phe Ala Met Thr Cys Ile Trp Ile His Leu
      420          425          430
Asn Arg Lys Ala Gln Asn Asp Asn Ser Lys Leu Gln Ile Pro Ile Pro
      435          440          445
His Ser Leu Arg Leu His His Glu Phe Leu Gln Gln Ser Leu Arg His
      450          455          460
Lys Ser Leu Gln Met Asn Asp Tyr Lys Ile Ala Leu Leu Cys Asn Ala
      465          470          475          480
Tyr Ser Thr Asn Ser Glu Cys Val Thr Leu Pro Met Gly Ala Leu Val
      485          490          495
Glu Thr Ile Tyr Gly Asn Gly Ile Met Arg Leu Pro Leu Pro Gly Thr

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 Asp Ser Leu Thr Val His Ala Lys Met Ser Leu Ile His Ser Ile Ala  
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 Thr Arg Val Ile Lys Leu Ala His Ala Lys Ser Val Ala Leu Ala  
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 Pro Ala Leu Val Glu Thr Tyr Ser Arg Leu Leu Val Tyr Met Glu Ile  
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 Glu Ser Leu Gly Ile Lys Gly Phe Ile Ser Gln Leu Leu Pro Thr Val  
 580 585 590  
 Phe Lys Ser His Ala Trp Gly Ile Leu His Thr Leu Leu Glu Met Phe  
 595 600 605  
 Ser Tyr Arg Met His His Ile Gln Pro His Tyr Arg Val Gln Leu Leu  
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 Ser His Leu His Thr Leu Ala Ala Val Ala Gln Thr Asn Gln Asn Gln  
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 Gly Ser Ser Glu Val Gln Pro Gln Phe Thr Arg Phe Leu Ser Asp Pro  
 660 665 670  
 Lys Thr Val Leu Ser Ala Glu Ser Glu Glu Leu Asn Arg Ala Leu Ile  
 675 680 685  
 Leu Thr Leu Ala Arg Ala Thr His Val Thr Asp Phe Phe Thr Gly Ser  
 690 695 700  
 Asp Ser Ile Gln Gly Thr Trp Cys Lys Asp Ile Leu Gln Thr Ile Met  
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 Ser Phe Thr Pro His Asn Trp Ala Ser His Thr Leu Ser Cys Phe Pro  
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 850 855 860  
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 Val Cys Tyr Phe Ile Ile Gln Leu Leu Leu Lys Pro Asn Asp Phe  
 885 890 895  
 Arg Asn Arg Val Ser Asp Phe Val Lys Glu Asn Ser Pro Glu His Trp  
 900 905 910  
 Leu Gln Asn Asp Trp His Thr Lys His Met Asn Tyr His Lys Lys Tyr  
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 Pro Glu Lys Leu Tyr Phe Glu Gly Leu Ala Glu Gln Val Asp Pro Pro

930  
 Val Gln Ile Gln Ser Pro Tyr Leu Pro Ile Tyr Phe Gly Asn Val Cys  
 945 950 955 960  
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 965 970 975  
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 980 985 990  
 Gly Leu Tyr Lys Phe His Asp Arg Pro Val Thr Tyr Leu Tyr Asn Thr  
 995 1000 1005  
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 Ser Glu Met Ser Cys Ser Tyr Thr Leu Ala Leu Ala His Ala Val Trp  
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 His His Ser Ser Ile Gly Gln Leu Ser Leu Ile Pro Lys Phe Leu Thr  
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 Glu Val Leu Leu Pro Ile Val Lys Thr Glu Phe Gln Leu Leu Tyr Val  
 1235 1240 1245  
 Tyr His Leu Val Gly Pro Phe Leu Gln Arg Phe Gln Gln Glu Arg Thr  
 1250 1255 1260  
 Arg Cys Met Ile Glu Ile Gly Val Ala Phe Tyr Asp Met Leu Leu Asn  
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 Val Asp Gln Cys Ser Thr His Leu Asn Tyr Met Asp Pro Ile Cys Asp  
 1285 1290 1295  
 Phe Leu Tyr His Met Lys Tyr Met Phe Thr Gly Asp Ser Val Lys Glu  
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 Leu Arg Phe Ile Thr His Ile Ser Lys Met Glu Pro Ala Ala Val Pro  
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 Asp Thr Leu Thr

&lt;210&gt; 5215

&lt;211&gt; 548

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5215

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&lt;210&gt; 5216

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5216

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			20					25					30		
Val	Asp	Glu	Ala	Ala	Ala	Gly	Xaa	Glu	Arg	Thr	Asp	Cys	Ser	Ser	Glu
		35					40					45			
Arg	Arg	Ser	Ala	Val	Gly	Ser	Met	Leu	Ser	Asp	Ser	Ile	Thr	Pro	His
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Arg	Glu	Ile	Phe	His	Glu	Arg	Lys	Ser	Pro	Ser	Leu	Trp	Pro	Thr	Phe
65				70					75					80	
Leu	Trp	Ser													

&lt;210&gt; 5217

&lt;211&gt; 4189

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5217

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 3660  
 gcccccctac atcaacctcc tggcgatgcc ctgggtggagc agatgggtgc tctgggagtc  
 3720  
 ctgtgcttcc tgatccaatg gtgccaacc cttcatctcc ccagaagcg cagcataccc  
 3780  
 ctggggacccc tcggccactg cccactcggg gagccttctc tgtttctggg gcctccccc  
 3840  
 ccatagctct gattcccacc ccacatagga atagcctgac tgagggggaa ggggtgggag  
 3900  
 agaagataca gacatggagg aggggaggct gctctggcaa agtcttcaag gcttttgggg  
 3960  
 gtccaggcct ggggtcaaga aggaaaatgt gtgtgagcat gtgtgtgagt gaggcgtgtg  
 4020  
 tgtgagcgtg tgtgtgagtg aggcgtgtgt gtgtgtcttt cctaggaccc accataccct  
 4080  
 gtgtatgtat gcattgtttt gtaaaaagga aaaaaatgga aaaaaatctg aacaataaat  
 4140  
 gttttatttg ctttaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 4189

&lt;210&gt; 5218

&lt;211&gt; 541

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5218

Met	Ala	Gly	Asp	Arg	Ala	Arg	Trp	Trp	Thr	Met	Ala	Trp	Ser	Thr	Gly
1			5						10				15		
Ser	Trp	Ala	Met	Gly	Ser	Leu	Arg	Pro	Glu	Ala	Pro	Leu	Leu	Ser	Ser
		20						25					30		
Ser	Thr	Leu	Arg	Cys	Cys	Ser	Gly	Asn	Ser	Ser	Asp	Trp	Leu	Gly	Gly
		35					40				45				
Ser	Pro	Gly	Ala	Ala	Pro	Gly	Thr	Leu	Cys	Cys	Phe	Leu	Trp	Pro	Arg
	50					55					60				
Val	Gly	Thr	Gly	Leu	Cys	Pro	Gly	Leu	Ser	Leu	Pro	Gln	Pro	His	Leu
	65					70				75				80	
Pro	His	Cys	Gln	Pro	Gln	Ser	Leu	Pro	Ala	Xaa	Ala	Arg	Val	Leu	Ser
			85					90					95		
Ser	Ser	Glu	Thr	Pro	Ala	Arg	Thr	Leu	Pro	Phe	Thr	Thr	Gly	Leu	Ile
		100						105					110		
Tyr	Asp	Ser	Val	Met	Leu	Lys	His	Gln	Cys	Ser	Cys	Gly	Asp	Asn	Ser

115 120 125  
 Arg His Pro Glu His Ala Gly Arg Ile Gln Ser Ile Trp Ser Arg Leu  
 130 135 140  
 Gln Glu Arg Gly Leu Arg Ser Gln Cys Glu Cys Leu Arg Gly Arg Lys  
 145 150 155 160  
 Ala Ser Leu Glu Glu Leu Gln Ser Val His Ser Glu Arg His Val Leu  
 165 170 175  
 Leu Tyr Gly Thr Asn Pro Leu Ser Arg Leu Lys Leu Asp Asn Gly Lys  
 180 185 190  
 Leu Ala Gly Leu Leu Ala Gln Arg Met Phe Val Met Leu Pro Cys Gly  
 195 200 205  
 Gly Val Gly Val Asp Thr Asp Thr Ile Trp Asn Glu Leu His Ser Ser  
 210 215 220  
 Asn Ala Ala Arg Trp Ala Ala Gly Ser Val Thr Asp Leu Ala Phe Lys  
 225 230 235 240  
 Val Ala Ser Arg Glu Leu Lys Asn Gly Phe Ala Val Val Arg Pro Pro  
 245 250 255  
 Gly His His Ala Asp His Ser Thr Ala Met Gly Phe Cys Phe Phe Asn  
 260 265 270  
 Ser Val Ala Ile Ala Cys Arg Gln Leu Gln Gln Ser Lys Ala Ser  
 275 280 285  
 Lys Ile Leu Ile Val Asp Trp Asp Val His His Gly Asn Ala Thr Gln  
 290 295 300  
 Gln Thr Phe Tyr Gln Asp Pro Ser Val Leu Tyr Ile Ser Leu His Arg  
 305 310 315 320  
 His Asp Asp Gly Asn Phe Phe Pro Gly Ser Gly Ala Val Asp Glu Val  
 325 330 335  
 Gly Ala Gly Ser Gly Glu Gly Phe Asn Val Asn Val Ala Trp Ala Gly  
 340 345 350  
 Gly Leu Asp Pro Pro Met Gly Asp Pro Glu Tyr Leu Ala Ala Phe Arg  
 355 360 365  
 Ile Val Val Met Pro Ile Ala Arg Glu Phe Ser Pro Asp Leu Val Leu  
 370 375 380  
 Val Ser Ala Gly Phe Asp Ala Ala Glu Gly His Pro Ala Pro Leu Gly  
 385 390 395 400  
 Gly Tyr His Val Ser Ala Lys Cys Phe Gly Tyr Met Thr Gln Gln Leu  
 405 410 415  
 Met Asn Leu Ala Gly Gly Ala Val Val Leu Ala Leu Glu Gly Gly His  
 420 425 430  
 Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Ala Ala Leu  
 435 440 445  
 Leu Gly Asn Arg Val Asp Pro Leu Ser Glu Glu Gly Trp Lys Gln Lys  
 450 455 460  
 Pro Asn Leu Asn Ala Ile Arg Ser Leu Glu Ala Val Ile Arg Val His  
 465 470 475 480  
 Ser Lys Tyr Trp Gly Cys Met Gln Arg Leu Ala Ser Cys Pro Asp Ser  
 485 490 495  
 Trp Val Pro Arg Val Pro Gly Ala Asp Lys Glu Glu Val Glu Ala Val  
 500 505 510  
 Thr Ala Leu Ala Ser Leu Ser Val Gly Ile Leu Ala Glu Asp Arg Pro  
 515 520 525  
 Ser Glu Gln Leu Val Glu Glu Glu Glu Pro Met Asn Leu  
 530 535 540

&lt;210&gt; 5219

&lt;211&gt; 1212

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5219

nnagagactt tcgcttcccg ctgccgcacg cttegctggt gcaggtaage tccgcacact  
60  
ctcgcccggt cccgagtcg actccctcaa gggtgacgcg agctctgccc ttttaaccgga  
120  
aacgtctctcc tgctcaccce acccccgcg agacgcagtg ctgagcacac agctaccgga  
180  
caaagagtga cgcccgagc tggagttatg gcggctacgg agccgatctt ggcggccact  
240  
gggagttccc cgcggtgcc accggagaaa ctggaaggag ccggttcgag ctacagccct  
300  
gagcgtaact gtgtgggctc ctcgctgcca gaggcctcac cgctgcccc tgagccttcc  
360  
agtcccaacg ccgcggtccc tgaagccatc cctacgcccc gagctgcggc ctcccgggcc  
420  
ctggagctgc ctctcgggcc cgaccccggt agcgtagcgc ctacagccga agctgaagcg  
480  
cgctccacac cagcccccgc cggctctaga ctcggtcccg agacgttccg ccagcgtttc  
540  
cggcagttcc gctaccagga tgcggcggtt ccccgggagg ctttccggca gctgcgggag  
600  
ctgtcccgcc agtggctgcg gctgacatc cgcaccaagg agcagatcgt ggagatgctg  
660  
gtgcaagagc agctgctcgc catctgccc gagggcgctc gggcccgcg gatccgccc  
720  
cgcacggatg tgcgcatcac tggctgagcg gtggagctgc gggcgccagc ggcggggcgc  
780  
tctgtcgga ctggggccat gatcgggccc gggggcctga gctgggacc ccccccgtg  
840  
ttaatgaaaa atgagttttg gcagcgccgtg tggctctggtg tgtctcttcc attcgttctt  
900  
attgggttta ttttaccagg cctgtttcct accgccttcc tggctggtg cgaacgaag  
960  
ttgggagtcc gtaacaataa ggcctctggt ggctatagtg ggatctttag atgttgactg  
1020  
aacctaggtt atccctctac cacacatggg aagtttttca cctgggctcc caaggacca  
1080  
cttgggtttc ttacacgcaa aatagctggc tctattaaat gctcacttaa ctggctacct  
1140  
ctataccaat atgggcacca acttgacacgt gcccttggg tacaggcttc ccacaatgtc  
1200  
cnagttactg gg  
1212

&lt;210&gt; 5220

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5220

```

Met Ala Ala Thr Glu Pro Ile Leu Ala Ala Thr Gly Ser Pro Ala Ala
 1              5              10              15
Val Pro Pro Glu Lys Leu Glu Gly Ala Gly Ser Ser Ser Ala Pro Glu
 20              25              30
Arg Asn Cys Val Gly Ser Ser Leu Pro Glu Ala Ser Pro Pro Ala Pro
 35              40              45
Glu Pro Ser Ser Pro Asn Ala Ala Val Pro Glu Ala Ile Pro Thr Pro
 50              55              60
Arg Ala Ala Ala Ser Ala Ala Leu Glu Leu Pro Leu Gly Pro Ala Pro
 65              70              75              80
Val Ser Val Ala Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly
 85              90              95
Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe Arg Gln Arg Phe Arg
100              105              110
Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln
115              120              125
Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro Asp Ile Arg Thr Lys
130              135              140
Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln Leu Leu Ala Ile Leu
145              150              155              160
Pro Glu Ala Ala Arg Ala Arg Arg Ile Arg Arg Arg Thr Asp Val Arg
165              170              175
Ile Thr Gly

```

&lt;210&gt; 5221

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5221

```

ntccggaccc tccaagtgga gaccctgggt gagccccag aacctgtgc cgagcccgt
60
gcttttggag acacgcttca catacactac acgggaagct tggtagatgg acgtattatt
120
gacacctccc tgaccagaga ccctctggtt atagaacctg gccaaaagca ggtgattcca
180
ggtctgggagc agagtcttct cgacatgtgt gtgggagaga agcgaagggc aatcattctc
240
tctcacttgg cctatggaaa acgggggattt ccaccatctg tccaggggac taaagacaa
300
ctgatgaggc cacctggcat gacctccagc agccagtaac ttgttaggga agagacctgc
360
ttggggccaca tgggtctgct gcctgtgccca ccacctttcc cagaacctg gactttcttc
420
ctgccccctt ctacaactct acgtgtgtgc agctgtacag ccacccccca ccccttcttc
480
tcagccacca tctgtcc
497

```

&lt;210&gt; 5222

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5222

Xaa Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu Pro Cys  
 1 5 10 15  
 Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr Thr Gly  
 20 25 30  
 Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg Asp Pro  
 35 40 45  
 Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu Glu Gln  
 50 55 60  
 Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile Ile Pro  
 65 70 75 80  
 Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val Pro Gly  
 85 90 95  
 Thr Lys Asp Asn Leu Met Arg Pro Pro Gly Met Thr Ser Ser Ser Gln  
 100 105 110

&lt;210&gt; 5223

&lt;211&gt; 637

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5223

ngcaccattt tcgacaatga agccaaagac gtggagagag aagtttgctt tattgatatt  
 60  
 gcctgcgatg aaattccaga gcgctactac aaagaatctg aggatcctaa gcacttcaag  
 120  
 tcagagaaga caggacgggg acagttgagg gaaggctgga gagatagtca tcagcctatc  
 180  
 atgtgctcct acaagctggt gactgtgaag tttgagggtc gggggcttca gaccagagtg  
 240  
 gaacaatttg tacacaaggt ggtccgagac attctgctga ttggacatag acaggctttt  
 300  
 gcatgggttg atgagtggta tgatatgaca atggatgatg ttccgggaata cgagaaaaac  
 360  
 atgcatgaac aaaccaacat aaaagtttgc aatcagcatt cctcccctgt ggatgacata  
 420  
 gagagtcagc cccaacaag tacatgacaa tggatgaagt ccgagaattt gaacgagcca  
 480  
 ctccaggaagc caccaacaag aaaatcggca ttttcccacc tgcaattttc atctccagca  
 540  
 tcccctgtct gcttctctcc gtccgcagtg cgccttctag tgctccatcc acccctctct  
 600  
 ccacagacgc acccgaattt ctgtccgttc ccaaaga  
 637

&lt;210&gt; 5224

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5224

Xaa Thr Ile Phe Asp Asn Glu Ala Lys Asp Val Glu Arg Glu Val Cys

```

      1           5           10           15
Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro Glu Arg Tyr Tyr Lys Glu
      20           25           30
Ser Glu Asp Pro Lys His Phe Lys Ser Glu Lys Thr Gly Arg Gly Gln
      35           40           45
Leu Arg Glu Gly Trp Arg Asp Ser His Gln Pro Ile Met Cys Ser Tyr
      50           55           60
Lys Leu Val Thr Val Lys Phe Glu Val Trp Gly Leu Gln Thr Arg Val
      65           70           75           80
Glu Gln Phe Val His Lys Val Val Arg Asp Ile Leu Leu Ile Gly His
      85           90           95
Arg Gln Ala Phe Ala Trp Val Asp Glu Trp Tyr Asp Met Thr Met Asp
      100          105          110
Asp Val Arg Glu Tyr Glu Lys Asn Met His Glu Gln Thr Asn Ile Lys
      115          120          125
Val Cys Asn Gln His Ser Ser Pro Val Asp Asp Ile Glu Ser His Ala
      130          135          140
Gln Thr Ser Thr
145

```

<210> 5225

<211> 394

<212> DNA

<213> Homo sapiens

<400> 5225

```

acgcgtgaag gggctggggt gggcaatcag ggaggacttc ctggaggcgg cagctgaggc
60
tggggcagag aaggaccacg ggcactggaa ggggaaggag aaacgtaagc agagtcttgg
120
caggcctggt cagacggaca tgcccaaggg aacagatagt accaggacag gggaccctgg
180
tctgaagggg cgatagcctg gccccagtg gaaacagccc ctcccaacc tggcggcaga
240
cagggagggt cggcaggtat gtgagatgca aacctggggg actgcccac cccagtgga
300
tgtgaggaca cggtgggttc aggaagtgga gtgacaaatg ggctgtgctg gacttgcttt
360
ccccacatga aggttaggaa ccaagagaac ggcc
394

```

<210> 5226

<211> 113

<212> PRT

<213> Homo sapiens

<400> 5226

```

Met Trp Gly Lys Gln Val Gln His Ser Pro Phe Val Thr Pro Leu Pro
      1           5           10           15
Glu Pro Thr Val Ser Ser His Pro Leu Gly Asp Gly Gln Ser Pro Arg
      20           25           30
Phe Ala Ser His Ile Pro Ala Asp Pro Pro Cys Leu Pro Pro Gly Leu
      35           40           45
Gly Gly Ala Val Ser Thr Gly Gly Gln Ala Ile Ala Pro Ser Asp Gln

```

50		55		60
Gly Pro Leu Ser Trp Tyr Tyr Leu Phe Pro Trp Ala Cys Pro Ser Asp				
65		70		75
Gln Ala Cys Gln Asp Ser Ala Tyr Val Ser Pro Ser Pro Ser Ser Ala				80
	85		90	95
Leu Gly Pro Ser Leu Pro Gln Pro Gln Leu Pro Pro Pro Gly Ser Pro				
	100		105	110
Pro				

&lt;210&gt; 5227

&lt;211&gt; 2366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5227

tcgcgaacag gccaccacagg cacacgtgga tgttctttag etccttgagg ccaccagatg  
 60  
 cagctgccag tgagatgttc tgcagctgtt tgatcctctc gctgaagtcg gacccccact  
 120  
 ggatgacggt catgccggca ggcaccgtgt agaaggccag tgtgtaacc ttacctgtct  
 180  
 acctgaactt caccctgca gacctcatct tcaccgtgga ctctgaaatt gctacaaagg  
 240  
 aggatcctcg cagcttctac gagcgggggtg tcgcagctct gtgcacagag taaacttttc  
 300  
 tagctgcccc ttctgttaat agtgaaagt ggtatttaac atttattcat ttttaaaata  
 360  
 tttggaaggt ctgagcttgt gaaaagaaag tggttggtct gaggttgagg gaagctgaat  
 420  
 ggaatctgac ggttgaggagt ggtgaaatt ggaaggatac caggaggat ttgggaaaac  
 480  
 cttacggagc tgccctcgtc tactggagca gaagaaatag acctaatttt cctcaaggga  
 540  
 attatggaga atcctattgt aaaatcactt gctaaggctc gtgagaggct agaagattcc  
 600  
 aaactagaag ctgtcagtga caataacttg gaattagca atgaaattct tgaagacatc  
 660  
 actcctctaa taaatgtgga tgaaaatgtg gcagaattgg ttggtatact caaagaacct  
 720  
 cacttcagc cactgttgga ggcccatgat attgtggcat caaagtgtta tgattcacct  
 780  
 ccactcaaggc cagaaatgaa taattcttct atcaataatc agttattacc agtagatgcc  
 840  
 attcgatttc ttggtattca caaaagagct ggggaaccac tgggtgtgac atttaggggt  
 900  
 gaaaataatg atctggtaat tgcccgaatc ctccatgggg gaatgataga tcgacaagggt  
 960  
 ctacttcatt tgggagatat aattaaagaa gtcaatggcc atgagggttg aataatcca  
 1020  
 aagggaattac aagaattact gaaaaatatt agtggaagtg tcaccctaaa aatcttacca  
 1080  
 agttatagag ataccattac tcctcaacag gtatttgtga agtgtcattt tgattataat  
 1140

ccatacaatg acaacctaata accttgcaaa gaagcaggat tgaagttttc caaaggagag  
 1200  
 attcttcaga ttgtaaatag agaagatcca aattggtggc aggctagcca tgtaaaagag  
 1260  
 ggaggaagcg ctggtctcat tccaagccag ttcttggaag agaagagaaa ggcatttgtt  
 1320  
 agaagagact gggacaattc aggacctttt tgtggaacta taagtagcaa aaaaaagaaa  
 1380  
 aagatgatgt atctcacaac cagaaatgca gaatttgatc gtcatgaaat ccagatatat  
 1440  
 gaggaggtag ccaaaatgcc tcccttcag agaaaaacat tagtattgat aggagctcaa  
 1500  
 ggtgtaggcc gaagaagctt gaaaaacagg ttcatagtat tgaatccac tagatttgga  
 1560  
 actacggtgc catttacttc acggaacca agggaagatg aaaaagatgg ccaggcatat  
 1620  
 aagtttgtgt cacgatctga gatggaagca gatattaaag ctggaaagta tttggaacat  
 1680  
 ggggaatatg aaggaaatct ctatggaacc aaaattgatt ctattcttga ggtgtccaa  
 1740  
 actggacgga ctgtcattct ggatgtcaac ccacaagcac tgaaagtatt gaggacatca  
 1800  
 gagttttatgc cctatgtggt atttattgag gtcctcgagc tagagacgtt acgtgccatg  
 1860  
 cacaaggctg tgggtgatgc aggaatcact accaagcttc tgaccgactc tgacttgaag  
 1920  
 aaaacagtgg atgaaagtgc acggattcag agagcataca accactattt tgatttgatc  
 1980  
 atcataaatg ataatctaga caaagccttt gaaaaactgc aaactgccat agagaaactg  
 2040  
 agaatggaac cacagtgggt cccaatcagc tgggtttact gatgattcag taaggttaac  
 2100  
 aatgaaaatt aaactcttaa aaagtgactg caacaataa accttctact gagaaaatac  
 2160  
 atcacagata gaagattatc tgctaagtcc aggcattttt atggtgtaga ttgaaataat  
 2220  
 agtacacttc tgaattttta tataaaatgt ggttggaag tgtactaata tataatttat  
 2280  
 cttaattttt ctaactttgt atggataatc tttctattca tatcacataa agaaatgcgt  
 2340  
 tgaagcaaaa aaaaaaaaaa aaaaaa  
 2366

&lt;210&gt; 5228

&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5228

Arg Leu Gly Val Val Glu Ile Gly Arg Ile Pro Gly Gly Ile Trp Glu  
 1 5 10 15  
 Asn Leu Thr Glu Leu Pro Ser Ser Thr Gly Ala Glu Glu Ile Asp Leu  
 20 25 30  
 Ile Phe Leu Lys Gly Ile Met Glu Asn Pro Ile Val Lys Ser Leu Ala

```

      35              40              45
Lys Ala Arg Glu Arg Leu Glu Asp Ser Lys Leu Glu Ala Val Ser Asp
  50              55              60
Asn Asn Leu Glu Leu Val Asn Glu Ile Leu Glu Asp Ile Thr Pro Leu
  65              70              75              80
Ile Asn Val Asp Glu Asn Val Ala Glu Leu Val Gly Ile Leu Lys Glu
      85              90              95
Pro His Phe Gln Ser Leu Leu Glu Ala His Asp Ile Val Ala Ser Lys
      100              105              110
Cys Tyr Asp Ser Pro Pro Ser Ser Pro Glu Met Asn Asn Ser Ser Ile
      115              120              125
Asn Asn Gln Leu Leu Pro Val Asp Ala Ile Arg Ile Leu Gly Ile His
      130              135              140
Lys Arg Ala Gly Glu Pro Leu Gly Val Thr Phe Arg Val Glu Asn Asn
      145              150              155              160
Asp Leu Val Ile Ala Arg Ile Leu His Gly Gly Met Ile Asp Arg Gln
      165              170              175
Gly Leu Leu His Val Gly Asp Ile Ile Lys Glu Val Asn Gly His Glu
      180              185              190
Val Gly Asn Asn Pro Lys Glu Leu Gln Glu Leu Leu Lys Asn Ile Ser
      195              200              205
Gly Ser Val Thr Leu Lys Ile Leu Pro Ser Tyr Arg Asp Thr Ile Thr
      210              215              220
Pro Gln Gln Val Phe Val Lys Cys His Phe Asp Tyr Asn Pro Tyr Asn
      225              230              235              240
Asp Asn Leu Ile Pro Cys Lys Glu Ala Gly Leu Lys Phe Ser Lys Gly
      245              250              255
Glu Ile Leu Gln Ile Val Asn Arg Glu Asp Pro Asn Trp Trp Gln Ala
      260              265              270
Ser His Val Lys Glu Gly Gly Ser Ala Gly Leu Ile Pro Ser Gln Phe
      275              280              285
Leu Glu Glu Lys Arg Lys Ala Phe Val Arg Arg Asp Trp Asp Asn Ser
      290              295              300
Gly Pro Phe Cys Gly Thr Ile Ser Ser Lys Lys Lys Lys Met Met
      305              310              315              320
Tyr Leu Thr Thr Arg Asn Ala Glu Phe Asp Arg His Glu Ile Gln Ile
      325              330              335
Tyr Glu Glu Val Ala Lys Met Pro Phe Gln Arg Lys Thr Leu Val
      340              345              350
Leu Ile Gly Ala Gln Gly Val Gly Arg Arg Ser Leu Lys Asn Arg Phe
      355              360              365
Ile Val Leu Asn Pro Thr Arg Phe Gly Thr Thr Val Pro Phe Thr Ser
      370              375              380
Arg Lys Pro Arg Glu Asp Glu Lys Asp Gly Gln Ala Tyr Lys Phe Val
      385              390              395              400
Ser Arg Ser Glu Met Glu Ala Asp Ile Lys Ala Gly Lys Tyr Leu Glu
      405              410              415
His Gly Glu Tyr Glu Gly Asn Leu Tyr Gly Thr Lys Ile Asp Ser Ile
      420              425              430
Leu Glu Val Val Gln Thr Gly Arg Thr Cys Ile Leu Asp Val Asn Pro
      435              440              445
Gln Ala Leu Lys Val Leu Arg Thr Ser Glu Phe Met Pro Tyr Val Val
      450              455              460
Phe Ile Ala Ala Pro Glu Leu Glu Thr Leu Arg Ala Met His Lys Ala

```

465		470		475		480
Val Val Asp Ala Gly Ile Thr Thr Lys Leu Leu Thr Asp Ser Asp Leu						
	485		490		495	
Lys Lys Thr Val Asp Glu Ser Ala Arg Ile Gln Arg Ala Tyr Asn His						
	500		505		510	
Tyr Phe Asp Leu Ile Ile Ile Asn Asp Asn Leu Asp Lys Ala Phe Glu						
	515		520		525	
Lys Leu Gln Thr Ala Ile Glu Lys Leu Arg Met Glu Pro Gln Trp Val						
	530		535		540	
Pro Ile Ser Trp Val Tyr						
545	550					

&lt;210&gt; 5229

&lt;211&gt; 1031

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5229

acgcgtgtgc tgtgggttaca tccgtggaac agacagacag cagctgcccc tgcaaatgtc  
 60  
 agcgcgaccg cagtcacaaag agcttgaaac ctaccaagcc ggaggactgt gctgtgcctc  
 120  
 tctcgccacc attttcccca agcactctca ggaacctggc aacagtgtcc ccttgtggcc  
 180  
 aagcctggaa catcacatct gtacgttgca atctgtggat cagctacgag actgagagaa  
 240  
 aggaatgaaa ggatggaaga attacaagat caggcactgc tgtctgtctg ttccacggat  
 300  
 gtaaccacag cacacgcgtg gtcacaggta ctagtgtgat aaatgcttgt tacatgaagg  
 360  
 cgtgaacagg gatgagaaga gacttcctgg agaacaacaa ggactaacaa tcaggaaggg  
 420  
 gaggtgatcg gggcaggagt aaagtggaac cctcagcaaa gccattcgct gtgatctctg  
 480  
 attgtgcagt gtcattgtct gtcaccagag cccctctgtg ttgatgttg gccaatgccg  
 540  
 ccagcatgat ctagcaggcc aaatcctaata ctaccattct ctgacaccag ctggctccct  
 600  
 ggggtcgtcc acccgatgtc cccattcttc cccacttggc cccccacac ggctctcgcc  
 660  
 aaaggaccgt gggaggcacc tgtgacactg cctttttctt gtgcagctgt tttttctttt  
 720  
 cattcttttc actcctcgtt actctttttt ttttctctc cagccccacac aaaactagga  
 780  
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 840  
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&lt;210&gt; 5230

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5230

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Met Ile Leu Gly Gly Lys Glu Ser Ser Leu Ala Leu Arg Tyr Pro Ser
 1           5           10           15
Val Cys Lys Gln Thr Glu Tyr Arg Lys Ile Ser Arg Ile Thr Lys Phe
          20           25           30
Leu Val Leu Cys Gly Leu Arg Val Lys Lys Lys Arg Val Thr Arg Ser
 35           40           45
Glu Lys Asn Glu Glu Glu Lys Gln Leu His Arg Lys Arg Ala Val Ser
 50           55           60
Gln Val Pro Pro Thr Val Leu Cys Arg Glu Pro Val Gly Glu Ala Lys
 65           70           75           80
Trp Gly Glu Trp Gly Thr Ser Gly Gly Arg Pro Gln Gly Thr Ser Trp
          85           90           95
Cys Gln Arg Met Val Asp
          100

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&lt;210&gt; 5231

&lt;211&gt; 845

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5231

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240
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480
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cttaa

845

<210> 5232

<211> 201

<212> PRT

<213> Homo sapiens

<400> 5232

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 20          25          30
Ser Pro Val Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu
 35          40          45
Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr
 50          55          60
Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg
 65          70          75          80
Asp Pro Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu
 85          90          95
Glu Gln Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile
100          105          110
Ile Pro Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val
115          120          125
Pro Ala Asp Ala Val Val Gln Tyr Asp Val Glu Leu Ile Ala Leu Ile
130          135          140
Arg Ala Asn Tyr Trp Leu Lys Leu Val Lys Gly Ile Leu Pro Leu Val
145          150          155          160
Gly Met Ala Met Val Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu
165          170          175
Tyr Arg Lys Ala Asn Arg Pro Lys Val Ser Lys Lys Lys Leu Lys Glu
180          185          190
Glu Lys Arg Asn Lys Ser Lys Lys Lys
195          200
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<210> 5233

<211> 2801

<212> DNA

<213> Homo sapiens

<400> 5233

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120
ctgttccctg gaaaaaatct aatgcaaggaa gggctagttc acagcaaatt cactgcctcc
180
tcccatgcac gtggtagaga gtaccagtat caacatggcc ctgttttctg ctaaaaccag
240
attttgagga atcagagacc cccaacacta ctactcagt agctagcagc cccttccttt
300
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caactgggag tggtattaga atgaaaagta attagttaga agggcataca tctcagtggc  
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420  
aactggtaca gcaatgggtg agatgagatc ctggagagag aacacagcca tccctatag  
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600  
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720  
ccagctatgc gcctcctcct cattgcttct gcctccacgt aaatgaaacc aaaggcctca  
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840  
caaggcacc catccacaca ttgtcaccac tactccaaga tagtattttt cttttcacac  
900  
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960  
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1920

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&lt;210&gt; 5234

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5234

Leu	Thr	Pro	Val	Ile	Ser	Ala	Leu	Trp	Glu	Ala	Lys	Ala	Gly	Gly	Ser
1				5					10				15		
Leu	Asp	Thr	Arg	Ser	Ser	Arg	Pro	Val	Trp	Gln	Arg	Gly	Glu	Thr	Thr
			20				25					30			
Ile	Ile	Ser	Lys	Glu	Thr	Pro	Pro	Pro	Arg	Leu	Ile	Phe	Lys	Lys	
			35				40				45				
Leu	Ala	Val	Pro	Val	Val	Pro	Ala	Thr							
	50					55									

&lt;210&gt; 5235

&lt;211&gt; 3017

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5235

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&lt;210&gt; 5236

&lt;211&gt; 178

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5236

Lys Thr Ile Val Leu Pro Pro Asn Trp Lys Thr Ala Arg Asp Pro Glu

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Gly Lys Ile Tyr Tyr Tyr His Val Ile Thr Arg Gln Thr Gln Trp Asp			
20	25	30	
Pro Pro Thr Trp Glu Ser Pro Gly Asp Asp Ala Ser Leu Glu His Glu			
35	40	45	
Ala Glu Met Asp Leu Gly Thr Pro Thr Tyr Asp Glu Asn Pro Met Lys			
50	55	60	
Ala Ser Lys Lys Pro Lys Thr Ala Glu Ala Asp Thr Ser Ser Glu Leu			
65	70	75	80
Ala Lys Lys Ser Lys Glu Val Phe Arg Lys Glu Met Ser Gln Phe Ile			
85	90	95	
Val Gln Cys Leu Asn Pro Tyr Arg Lys Pro Asp Cys Lys Val Gly Arg			
100	105	110	
Ile Thr Thr Thr Glu Asp Phe Lys His Leu Ala Arg Lys Leu Thr His			
115	120	125	
Gly Val Met Asn Lys Glu Leu Lys Tyr Cys Lys Asn Pro Glu Asp Leu			
130	135	140	
Glu Cys Asn Glu Asn Val Lys His Lys Thr Lys Glu Tyr Ile Lys Lys			
145	150	155	160
Tyr Met Gln Lys Phe Gly Ala Val Tyr Lys Pro Lys Glu Asp Thr Glu			
165	170	175	
Leu Glu			

&lt;210&gt; 5237

&lt;211&gt; 1238

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5237

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 180  
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 480  
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 600  
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 660  
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 720

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 780  
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 1080  
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 1140  
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 1238

<210> 5238

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5238

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		20						25				30		Leu
Leu	Leu	Gly	Ile	Tyr	Ile	Ile	His	Arg	Ala	Val	Arg	Asn	Pro	Asp
		35					40				45			Asp
Leu	Glu	Ala	Arg	Ser	His	Met	His	Leu	Ala	Ser	Ala	Phe	Ala	Gly
	50					55				60				Ile
Gly	Phe	Gly	Asn	Ala	Gly	Val	His	Leu	Cys	His	Gly	Met	Ser	Tyr
65					70				75					Pro
Ile	Ser	Gly	Leu	Val	Lys	Met	Tyr	Lys	Ala	Lys	Asp	Tyr	Asn	Val
			85					90				95		Asp
His	Pro	Leu	Val	Pro	His	Gly	Leu	Ser	Val	Val	Leu	Thr	Ser	Pro
		100					105					110		Ala
Val	Phe	Thr	Phe	Thr	Ala	Gln	Met	Phe	Pro	Glu	Arg	His	Leu	Glu
		115				120					125			Met
Ala	Glu	Ile	Leu	Gly	Ala	Asp	Thr	Arg	Thr	Ala	Arg	Ile	Gln	Asp
	130					135				140				Ala
Gly	Leu	Val	Leu	Ala	Asp	Thr	Leu	Arg	Lys	Phe	Leu	Phe	Asp	Leu
145				150					155				160	Asp
Val	Asp	Asp	Gly	Leu	Ala	Ala	Val	Gly	Tyr	Ser	Lys	Ala	Asp	Ile
		165						170					175	Pro
Ala	Leu	Val	Lys	Gly	Thr	Leu	Pro	Gln	Glu	Arg	Val	Thr	Lys	Leu
	180					185						190		Ala
Pro	Arg	Pro	Gln	Ser	Glu	Glu	Asp	Leu	Ala	Ala	Leu	Phe	Glu	Ala
		195				200						205		Ser
Met	Lys	Leu	Tyr											
	210													

&lt;210&gt; 5239

&lt;211&gt; 2061

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5239

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780  
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840  
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900  
ccttcaactg agctggcacc tccatcttgg cttgtttcag tgctgccac ctccctgctt  
960  
tcaactgtcag caggagggac tccttcaggg tgcaactgtg cagggggcct aggagcctca  
1020  
gggggtgttg gcagcacagg gactggggct tcaaccctta ccaactgtgc catctcttct  
1080  
tcttcttctt ctctctcttc ttctctcttc tcttcagagt ctgtatcact ggggggtgac  
1140  
tggggaggcc caggaggtgg gactctatcc ccccgctctg ctttttttaa ctctcgcttc  
1200  
ttgctcttct tgatttcgaga tctcttttcc ccacccccag gagggtggcg aggcctccga  
1260  
agcaccacca agccagcccc agctcctggc cccaacttcc ggttctttcg gtccttcttt  
1320  
cgaggaggat gggagaggtc cccctgggaa aggggcacgg gggaagagc agcagggggc  
1380  
cgggagggat gtgtcaggga tgtgggggac aaaggagatg ccacttttgg ccatccaga  
1440

tcaaagagag agtccttgag ctctcatcttc tcaagcaagg tagcactgtc gggggcctgc  
 1500  
 agacgagaga aagtggacct tgggggtcct ggctgggtgg gacctgcttg agctgcctt  
 1560  
 ctcttgatg actttgcttt cttaacaaaa gtctggatgg ttcgaagatc tgaggggggc  
 1620  
 gagtccagc catcactgtc ggccgcactc tctcctcgca atggagagct ggagccagag  
 1680  
 gctggccagt cactttcttc ttgtctaggg ggaatgtaac cagcatatgc caaaacaaaa  
 1740  
 ctgcagaatt tgttgaatac ctcaattgtt tcccgccgtt tctctgggtg ctgagtctct  
 1800  
 ggcttaaggg tcggaggtgg atcttcggga ctgggctccg ccattggcttc cagcatcgcc  
 1860  
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 1920  
 ctagtctctg atgctccac tgcctcgctc cacagaagtg tccgcctcag cccggttgag  
 1980  
 actcgagctc gctagccgct gcgcacact cctctacca ctgcctccg cactcccgga  
 2040  
 cggggcccc tcccccgcg g  
 2061

&lt;210&gt; 5240

&lt;211&gt; 226

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5240

Met Met Ser Ser Met Thr Arg Ile Ser Pro Ser Leu Glu Leu Ala  
 1 5 10 15  
 Ser Pro Ser Trp Leu Val Ser Val Leu Pro Thr Ser Leu Leu Ser Leu  
 20 25 30  
 Ser Ala Gly Gly Thr Pro Ser Gly Cys Thr Val Ala Gly Gly Leu Gly  
 35 40 45  
 Ala Ser Gly Gly Val Gly Ser Thr Gly Thr Gly Ala Ser Pro Pro Thr  
 50 55 60  
 Thr Val Ala Ile Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser  
 65 70 75 80  
 Ser Ser Glu Ser Val Ser Leu Gly Gly Ala Trp Gly Gly Pro Gly Gly  
 85 90 95  
 Gly Ser Leu Ser Pro Arg Ser Ala Phe Phe Asn Phe Arg Phe Leu Leu  
 100 105 110  
 Phe Leu Ile Arg Asp Leu Phe Ser Pro Ser Pro Gly Val Gly Arg Gly  
 115 120 125  
 Leu Arg Ser Thr Pro Lys Pro Ala Pro Ala Pro Gly Pro Asn Phe Arg  
 130 135 140  
 Phe Phe Arg Ser Phe Phe Arg Gly Gly Trp Glu Arg Ser Pro Trp Glu  
 145 150 155 160  
 Arg Gly Thr Gly Val Arg Ala Ala Gly Gly Arg Glu Val Cys Val Arg  
 165 170 175  
 Asp Val Gly Asp Lys Gly Asp Ala Thr Leu Gly Pro Ser Arg Ser Lys  
 180 185 190  
 Arg Glu Ser Leu Ser Phe Ile Phe Ser Ser Lys Val Ala Leu Ser Gly

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195                200                205
Ala Cys Arg Arg Glu Lys Val Asp Leu Gly Gly Pro Gly Trp Val Gly
210                215                220
Pro Ala
225

<210> 5241
<211> 461
<212> DNA
<213> Homo sapiens

<400> 5241
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ccctcaatat gccgggggtg taccatttc caagggatga cagcagggcc ccacagcgag
120
cccaggctg atccggagcc ctcttcaccc cgcgccaggg cggtttgac tgctcccgcc
180
atcggcacac cttgttctgg ttgtgctggg acggcagcgc cccgtgaggt cagaggggtg
240
ctgtcacatc tgccacccag tgtgggtctcc tggagatttc agtggttcgg tgcttcgctt
300
ctcacctggc cagctctgag ttcagcctct cgctgtggg gacccttgca tcctggcgcc
360
agaaggagga ggaagaagcc accagaggtt gccaggaacc cagtggcagg ggaggtgggg
420
ctgagccagg cccgcccgtc gtgccgggag tccccacgcg g
461

<210> 5242
<211> 146
<212> PRT
<213> Homo sapiens

<400> 5242
Met Asp Ala Phe Ile Thr Phe Val Pro Leu Arg Ala Ser Pro Ser Ile
1          5          10          15
Cys Arg Gly Cys Thr His Phe Gln Gly Met Thr Ala Gly Pro His Ser
20        25        30
Glu Pro Gln Ala Asp Pro Glu Pro Ser Ser Ser Pro Ser Arg Ala Val
35        40        45
Cys Thr Ala Pro Gly Ile Gly Thr Pro Cys Ser Gly Cys Ala Gly Thr
50        55        60
Ala Ala Pro Arg Glu Val Arg Gly Leu Leu Ser His Leu Pro Pro Ser
65        70        75        80
Val Val Ser Trp Arg Phe Gln Trp Phe Gly Ala Ser Leu Leu Thr Trp
85        90        95
Pro Ala Leu Ser Ser Ala Ser Arg Leu Trp Gly Pro Leu His Pro Gly
100       105       110
Gly Arg Arg Arg Arg Lys Lys Pro Pro Glu Val Ala Arg Asn Pro Val
115       120       125
Ala Gly Glu Val Gly Leu Ser Gln Ala Arg Pro Leu Cys Arg Glu Phe
130       135       140
Pro Arg

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145

&lt;210&gt; 5243

&lt;211&gt; 344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5243

ngaattcctt gcattctctt ctgggccc aaagaataatga ttaaatttaa gaatcaaacc  
 60  
 tggctggacc ttacagacga gccatttggg cagaaggtaa ctgtggaccc tgacaactca  
 120  
 aattgcagtg aagaaagtgc taggttgtct ttgaagcttg gtgatgctgg aaacccaga  
 180  
 agtcttgcta taagattcat ccttaccat tacaacaagt tgcctatcca gagttggttt  
 240  
 agtttgcgcc gagtcgagat catttccaac aattcaatcc aagcagtctt taacccaact  
 300  
 ggcgtatatg ctcctcttgg ttactcctac cgtgccaac gcgt  
 344

&lt;210&gt; 5244

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5244

Xaa	Ile	Pro	Cys	Ile	Leu	Phe	Trp	Ala	Lys	Arg	Ile	Met	Ile	Lys	Phe
1				5					10					15	
Lys	Asn	Gln	Thr	Trp	Leu	Asp	Leu	Thr	Asp	Glu	Pro	Phe	Gly	Gln	Lys
			20					25					30		
Val	Thr	Val	Asp	Pro	Asp	Asn	Ser	Asn	Cys	Ser	Glu	Glu	Ser	Ala	Arg
			35					40				45			
Leu	Ser	Leu	Lys	Leu	Gly	Asp	Ala	Gly	Asn	Pro	Arg	Ser	Leu	Ala	Ile
			50			55				60					
Arg	Phe	Ile	Leu	Thr	Asn	Tyr	Asn	Lys	Leu	Ser	Ile	Gln	Ser	Trp	Phe
			65			70				75				80	
Ser	Leu	Arg	Arg	Val	Glu	Ile	Ile	Ser	Asn	Asn	Ser	Ile	Gln	Ala	Val
			85						90				95		
Phe	Asn	Pro	Thr	Gly	Val	Tyr	Ala	Pro	Ser	Gly	Tyr	Ser	Tyr	Arg	Cys
			100					105					110		

Gln Arg

&lt;210&gt; 5245

&lt;211&gt; 483

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5245

nngccatgga aacgaaagcg gccaaagtaga gctccgtcct gacgcgccgc ctcccgtggg  
 60  
 ctccggccgg ctaagccgcg gcggacaact atgctgaaag ccaagatcct ctccgtgggg  
 120

ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacacgcc caacccaagg agtgagggtt gagtcctgct ggccggccct gatgaaggat  
 240  
 gctcatggag tggatgatcgt cttcaatgct gacatcccaa gccaccggaa ggaatggag  
 300  
 atgtggtatt cctgctttgt ccaacagcgc tccttacagg acacacagtg tatgctaatt  
 360  
 gcacaccaca aaccaggctc tggagatgat aaaggaagcc tgtctttgtc gccacccttg  
 420  
 aacaagctga agctgggtgca ctcaaacctg gaagatgacc ctgaggagat cggatggaa  
 480  
 ttc  
 483

<210> 5246

<211> 131

<212> PRT

<213> Homo sapiens

<400> 5246

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
1				5					10					15	
Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met
		35					40					45			
Lys	Asp	Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser
		50				55					60				
His	Arg	Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro
65					70				75					80	
Ser	Leu	Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly
			85					90					95		
Ser	Gly	Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys
			100				105					110			
Leu	Lys	Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg
			115				120					125			
Met	Glu	Phe													
			130												

<210> 5247

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 5247

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 ctccggccgg ctaagccgcg gcggacaact atgctgaaag ccaagatcct ctccgtgggg  
 120  
 ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact  
 180  
 gaatacacgcc caacccaagg agtgaggatc ctagaatttg agaaccgcga tgttaccagg  
 240

aacaacaaag gcacgggctg tgaattcgag ctatgggact gtggtggcga tgctaagttt  
 300  
 gaggctctgct ggccggccct gatgaaggat gctcatggag tggatgatcgt cttcaatgct  
 360  
 gacatcccaa gccaccggaa ggaaatggag atgtggtatt cctgctttgt ccaacagccg  
 420  
 tccttacagg acacacagtg tatgctaatt gcacaccaca aaccaggctc tggagatgat  
 480  
 aaaggaagcc tgtctttgtc gccacccttg aacaagctga agctggtgca ctcaaacctg  
 540  
 gaagatgacc ctgaggagat ccggatggaa ttcataaagt atttaaaaag cataatcaac  
 600  
 tccatgtctg agagcagaga cagggaggag atgtcaatta tgacntagcc agccttcacc  
 660  
 tgggactgcc acatccccag tgaatcagc atgtttctcg gtgcagatct gaaatcacat  
 720  
 ccagctcctg atgttttctt ctccctctga ctgcagagga agtggttcta cctgcaggaa  
 780  
 ggcacctgtc acacagggcg ttcactcaga ccactctgtc tctgccctga gttcagttga  
 840  
 gaaaatccta ttatcaaat tggatttctt ggccccagaa ctcccaaag acctgtaaaa  
 900  
 tggagggtatt taccacctca catatgtcca gttaaacagt ttgtggactt gtaaccgtcg  
 960  
 cagcccaatg atacaacagt agtttaatca cgtgaaaaaa aaaa  
 1004

&lt;210&gt; 5248

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5248

Met Leu Lys Ala Lys Ile Leu Phe Val Gly Pro Cys Glu Ser Gly Lys  
 1 5 10 15  
 Thr Val Leu Ala Asn Phe Leu Thr Glu Ser Ser Asp Ile Thr Glu Tyr  
 20 25 30  
 Ser Pro Thr Gln Gly Val Arg Ile Leu Glu Phe Glu Asn Pro His Val  
 35 40 45  
 Thr Ser Asn Asn Lys Gly Thr Gly Cys Glu Phe Glu Leu Trp Asp Cys  
 50 55 60  
 Gly Gly Asp Ala Lys Phe Glu Ser Cys Trp Pro Ala Leu Met Lys Asp  
 65 70 75 80  
 Ala His Gly Val Val Ile Val Phe Asn Ala Asp Ile Pro Ser His Arg  
 85 90 95  
 Lys Glu Met Glu Met Trp Tyr Ser Cys Phe Val Gln Gln Pro Ser Leu  
 100 105 110  
 Gln Asp Thr Gln Cys Met Leu Ile Ala His His Lys Pro Gly Ser Gly  
 115 120 125  
 Asp Asp Lys Gly Ser Leu Ser Leu Ser Pro Pro Leu Asn Lys Leu Lys  
 130 135 140  
 Leu Val His Ser Asn Leu Glu Asp Asp Pro Glu Glu Ile Arg Met Glu  
 145 150 155 160  
 Phe Ile Lys Tyr Leu Lys Ser Ile Ile Asn Ser Met Ser Glu Ser Arg

165 170 175  
 Asp Arg Glu Glu Met Ser Ile Met Thr  
 180 185

<210> 5249  
 <211> 653  
 <212> DNA  
 <213> Homo sapiens

<400> 5249  
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 60  
 taccggggct ggctagtcac gggggagccc agtagagagg agtataaaat ccagtccttt  
 120  
 gatgcagaga cccagcagct gctgaagaca gcactcaaa atccgggtgc tgtggacttg  
 180  
 gagaaagtgg ccaatgtgat tgtggacat tctctgcagg actgtgtgtt cagcaaggaa  
 240  
 gcaggacgca tgtgctacgc catcattcag gcagagagta aacaagcagg ccagagtgtc  
 300  
 ttccgacgtg gactcctcaa ccgggtgcag caggagtacc aggctcggga gcagctgcga  
 360  
 gcacgctccc tgcagggtgc ggtctgctat gtcaccttta tctgcaacat ctttgactac  
 420  
 ctgaggggtga acaacatgcc catgatggcc ctggtgaacc ctgtctatga ctgcctcttc  
 480  
 cggtctggccc agccagacag tttagcaag gaggaggagg tggactgttt ggtgctgcag  
 540  
 ctgcaccggg ttggggagca gctggagaaa atgaatgggc agcgcatgga tgagctcttt  
 600  
 gtgctgatcc gggatggctt cctgctccca actggcctca gctccctggc cca  
 653

<210> 5250  
 <211> 217  
 <212> PRT  
 <213> Homo sapiens

<400> 5250  
 Xaa Arg Val Arg Ala Thr Gly Pro Ala Gly Ala Val Leu Ile Pro Ser  
 1 5 10 15  
 Pro Val Lys Ser Tyr Arg Gly Trp Leu Val Met Gly Glu Pro Ser Arg  
 20 25 30  
 Glu Glu Tyr Lys Ile Gln Ser Phe Asp Ala Glu Thr Gln Gln Leu Leu  
 35 40 45  
 Lys Thr Ala Leu Lys Asp Pro Gly Ala Val Asp Leu Glu Lys Val Ala  
 50 55 60  
 Asn Val Ile Val Asp His Ser Leu Gln Asp Cys Val Phe Ser Lys Glu  
 65 70 75 80  
 Ala Gly Arg Met Cys Tyr Ala Ile Ile Gln Ala Glu Ser Lys Gln Ala  
 85 90 95  
 Gly Gln Ser Val Phe Arg Arg Gly Leu Leu Asn Arg Leu Gln Gln Glu  
 100 105 110  
 Tyr Gln Ala Arg Glu Gln Leu Arg Ala Arg Ser Leu Gln Gly Trp Val

```

          115              120              125
Cys Tyr Val Thr Phe Ile Cys Asn Ile Phe Asp Tyr Leu Arg Val Asn
130              135              140
Asn Met Pro Met Met Ala Leu Val Asn Pro Val Tyr Asp Cys Leu Phe
145              150              155              160
Arg Leu Ala Gln Pro Asp Ser Leu Ser Lys Glu Glu Glu Val Asp Cys
          165              170              175
Leu Val Leu Gln Leu His Arg Val Gly Glu Gln Leu Glu Lys Met Asn
          180              185              190
Gly Gln Arg Met Asp Glu Leu Phe Val Leu Ile Arg Asp Gly Phe Leu
          195              200              205
Leu Pro Thr Gly Leu Ser Ser Leu Ala
          210              215

```

<210> 5251  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

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<400> 5251
atgaacaggc gtgttatatc tgctaaccaca tatctagggg gcacctccaa cggctatgcc
60
caccgccgag ggaaggcact tcattatgac gatgtcccgat gcatcaacgg ctccgggggaa
120
cgggaagacg gctttcctgc tttctgcagc agaagcttgg gagaagaagg ggcttttgaa
180
aaccagggcc tgtagataaa ctggccgcct ccgcacatct ttgcccgcta ctctcctgct
240
gacagaaagg cctctaggct gtctgctgac aagctgtcct ctaaccatta caaataccct
300
gcctctgctc agtctgtcac taatacctct tctgtgggga gggcgctctc cgggctcaac
360
tcgcagcctc ag
372

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<210> 5252  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

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<400> 5252
Met Asn Arg Arg Val Ile Ser Ala Asn Pro Tyr Leu Gly Gly Thr Ser
1      5      10      15
Asn Gly Tyr Ala His Pro Ser Gly Thr Ala Leu His Tyr Asp Asp Val
20      25      30
Pro Cys Ile Asn Gly Ser Gly Glu Pro Glu Asp Gly Phe Pro Ala Phe
35      40      45
Cys Ser Arg Ser Leu Gly Glu Gly Ala Phe Glu Asn Pro Gly Leu
50      55      60
Tyr Asp Asn Trp Pro Pro His Ile Phe Ala Arg Tyr Ser Pro Ala
65      70      75      80
Asp Arg Lys Ala Ser Arg Leu Ser Ala Asp Lys Leu Ser Ser Asn His
85      90      95
Tyr Lys Tyr Pro Ala Ser Ala Gln Ser Val Thr Asn Thr Ser Ser Val

```

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                100                105                110
Gly Arg Ala Ser Leu Gly Leu Asn Ser Gln Pro Gln
                115                120

<210> 5253
<211> 898
<212> DNA
<213> Homo sapiens

<400> 5253
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60
ccacagtgc tttccagtc agcaaatgga aatctgggga gtctatactt tgctcacaac
120
tcattctcaat gccatccttg tggagagcca cagtgtagtg caagggtcca tccaattcac
180
tgtggacaag gtcttggagc aacatcacca ggctgccaag gctcagcaga aactacaggc
240
ctcaactcca gtggctgtga actccatcat gagtattctg actggaagca ctaggagcag
300
cttcgaaaag atgtgtctcc agacccttca agcagctgac acacaagagt tcaggaccaa
360
actgcacaaa gtatttctg agatcaccca acaccaatth cttcaccact gctcatgtga
420
ggtgaagcag cagctaacc tagaaaaaaa ggactcagcc cagggcactg aggagcacc
480
tgataacagc agcctggagc tcctagcaga taccagcggg caagcagaaa acaagaggct
540
caagaggggc agccccgcga tagaggagat gcgagctctg cgctctgccca gggccccgag
600
cccgtagagc gccgccccgc gccgccccga agccaccgcg gccccctca ctctagagg
660
aaggggagcac cgcgaggctc acggcagggc cctggcgccg gccagggcga gcctcggaag
720
ccgcctggag gacgtgctgt ggctgcagga ggtctccaac ctgtcagagt ggctgagtc
780
cagccctggg ccttgagccg ggtcccttcc cgcaagcgcc caccgatccg gaggctgcgg
840
gcagccgtta tcccgtggtt taataaagct gccgcgcgct caaaaaaaaa aaaaaaaaa
898

<210> 5254
<211> 56
<212> PRT
<213> Homo sapiens

<400> 5254
Gln Gln Pro Gly Ala Pro Ser Arg Tyr Gln Arg Ala Ser Arg Lys Gln
1 5 10 15
Glu Ala Gln Glu Gly Gln Pro Pro His Arg Gly Asp Ala Ser Ser Ala
20 25 30
Leu Cys Gln Gly Pro Glu Pro Val Arg Gly Arg Pro Ala Pro Pro Gly
35 40 45
Ser His Arg Gly Pro Pro His Ser

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50

<210> 5255  
<211> 1410  
<212> DNA  
<213> Homo sapiens

55

<400> 5255  
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60  
caaccccaga tccccatgcc tcgagccctg gatctccaag ctccagctgct ggattcttga  
120  
tgtcaacaaa cctcaccact ggatcctgac aaccacaatg cctggatcct ggggccccca  
180  
tcactggatc ccagatcccc tcactccacc cactggattc ctgcattgggt ttttggtttt  
240  
ttgttttttt ttaacctcga cactgggtct cagatccttc tgctgactgc cagatccctg  
300  
catttcaagc actacgcctt ccaccccag gcactggatc ccagattccc aagccttcac  
360  
ccaccagatt ctggctccta aaacaagtgc gggggcccca gtggcacagc aagtggatcc  
420  
tggcaactgc agctgctgga ttccagattc tgggtcccca atccctctgc ccagtccttc  
480  
aatgttgaaa cctcatctct tgaaggcaga tcctgatatt ccaaggcact gaatcccaag  
540  
ccctgaatcc ccggtttctg atctgaatct tccaggcgcc ggggtcccaa tgttcaggcc  
600  
ccaagtctag atcctggcag cccagtcaca gactatccca cacacactgg tgcccagagc  
660  
cggtctctca tgacatgaaa ttgcatggtc gagggagtct gtggggaagg aagcccagggt  
720  
cctggctgca acctgcacgg atgctggatt cccctccacc ccacctctgc atggccaccc  
780  
cctcccagcc ctgtggggaa actgttcctt ggaaccactc cactccctgc atcccacac  
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960  
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1020  
gttgaaagcc aggagaaaaat cggcaaagac cacccttccc taaacccaag cacccaatga  
1080  
tgcaaaaaac aaaaacaaaa aaaccacca aatccccaaa ttcatccag atctattttt  
1140  
ctaccagaga gaggagcaaa gtcctcctcc cctgcgcctt tacattctgc acttcatagt  
1200  
tggtattctga gcttaggatc atctggagac cccatggagg gacttggaag ggggaactgg  
1260  
gatttgggga ggggctggag gacttccgca cgcttccacc tctctgacc tccactgcgc  
1320  
cccacctccc tgctgtgtg tgttatttca aaggaaaaga aaaaaggaa taaattttct  
1380

aagctctttaa aaaaaaaaaa aaaaaaaaaa  
1410

<210> 5256

<211> 95

<212> PRT

<213> Homo sapiens

<400> 5256

Met	Val	Glu	Gly	Val	Cys	Gly	Glu	Gly	Ser	Pro	Gly	Pro	Gly	Cys	Asn
1				5					10					15	
Leu	His	Gly	Cys	Trp	Ile	Pro	Pro	His	Pro	Thr	Ser	Ala	Trp	Pro	Pro
		20						25					30		
Pro	Pro	Ser	Pro	Val	Gly	Lys	Leu	Phe	Pro	Gly	Thr	Thr	Pro	Leu	Pro
		35					40					45			
Ala	Ser	Pro	His	Phe	Thr	Ala	Ser	Ser	Ile	Pro	Leu	Pro	Pro	Ser	Arg
		50				55					60				
Arg	Ile	Val	Pro	Arg	Ala	Val	Phe	Leu	Gln	Gly	Val	Arg	Gly	Ile	Thr
		65			70				75					80	
His	Ser	Trp	Arg	Leu	Ala	Arg	Arg	Gln	Ser	Glu	Ala	Arg	Asp	Thr	
			85						90					95	

<210> 5257

<211> 1366

<212> DNA

<213> Homo sapiens

<400> 5257

ncagggtcttg tgttggttgg agcgagcatg tgggtctgca gtacctctgtg gcgggtgcga  
60  
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<210> 5258

<211> 375

<212> PRT

<213> Homo sapiens

<400> 5258

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			20				25				30				
Ser	Tyr	Ser	Ala	Ser	Ala	Glu	Pro	Ala	Arg	Val	Arg	Gly	Leu	Val	Tyr
		35				40					45				
Gly	His	His	Gly	Asp	Pro	Ala	Lys	Val	Val	Glu	Leu	Lys	Asn	Leu	Glu
	50				55					60					
Leu	Ala	Ala	Val	Arg	Gly	Ser	Asp	Val	Arg	Val	Lys	Met	Leu	Ala	Ala
65				70				75					80		
Pro	Ile	Asn	Pro	Ser	Asp	Ile	Asn	Met	Ile	Gln	Gly	Asn	Tyr	Gly	Leu
			85					90					95		
Leu	Pro	Glu	Leu	Pro	Ala	Val	Gly	Gly	Asn	Glu	Gly	Val	Ala	Gln	Val
			100				105						110		
Val	Ala	Val	Gly	Ser	Asn	Val	Thr	Gly	Leu	Lys	Pro	Gly	Asp	Trp	Val
		115				120						125			
Ile	Pro	Ala	Asn	Ala	Gly	Leu	Asp	Ser	Gly	Thr	Trp	Arg	Thr	Glu	Ala
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Val	Phe	Ser	Glu	Glu	Ala	Leu	Ile	Gln	Val	Pro	Ser	Asp	Ile	Pro	Leu
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Gln	Ser	Ala	Ala	Thr	Leu	Gly	Val	Asn	Pro	Cys	Thr	Ala	Tyr	Arg	Met
			165					170					175		
Leu	Met	Asp	Phe	Glu	Gln	Leu	Gln	Pro	Gly	Asp	Ser	Val	Ile	Gln	Asn
		180					185					190			
Ala	Ser	Asn	Ser	Gly	Val	Gly	Gln	Ala	Val	Ile	Gln	Ile	Ala	Ala	Ala
		195				200					205				
Leu	Gly	Leu	Arg	Thr	Ile	Asn	Val	Val	Arg	Asp	Arg	Pro	Asp	Ile	Gln

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      210              215              220
Lys Leu Ser Asp Arg Leu Lys Ser Leu Gly Ala Glu His Val Ile Thr
225              230              235              240
Glu Glu Glu Leu Arg Arg Pro Glu Met Lys Asn Phe Phe Lys Asp Met
      245              250              255
Pro Gln Pro Arg Leu Ala Leu Asn Cys Val Gly Gly Lys Ser Ser Thr
      260              265              270
Glu Leu Leu Arg Gln Leu Ala Arg Gly Gly Thr Met Val Thr Tyr Gly
      275              280              285
Gly Met Ala Lys Gln Pro Val Val Ala Ser Val Ser Leu Leu Ile Phe
      290              295              300
Lys Asp Leu Lys Leu Arg Gly Phe Trp Leu Ser Gln Trp Lys Lys Asp
305              310              315              320
His Ser Pro Asp Gln Phe Lys Glu Leu Ile Leu Thr Leu Cys Asp Leu
      325              330              335
Ile Arg Arg Gly Gln Leu Thr Ala Pro Ala Cys Ser Gln Val Pro Leu
      340              345              350
Gln Asp Tyr Gln Ser Ala Leu Glu Ala Ser Met Lys Pro Phe Ile Ser
      355              360              365
Ser Lys Gln Ile Leu Thr Met
      370              375

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&lt;210&gt; 5259

&lt;211&gt; 306

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5259

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120
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180
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240
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300
agttta
306

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&lt;210&gt; 5260

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5260

```

Met Thr Glu Glu Lys Thr Leu Thr Ala Glu Gly Leu Val Lys Leu Leu
1      5      10      15
Gln Ala Val Lys Thr Thr Phe Pro Asn Leu Gly Leu Leu Leu Glu Lys
      20      25      30
Leu Gln Lys Ser Ala Thr Leu Pro Ser Thr Thr Val Gln Pro Ser Pro
      35      40      45
Asp Asp Tyr Gly Thr Glu Leu Leu Arg Arg Tyr His Glu Asn Leu Ser

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50	55	60
Glu Ile Phe Thr Asp Asn Gln Ile Leu Leu Lys Met Ile Ser His Met		
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Thr Ser Leu		80

<210> 5261  
 <211> 2394  
 <212> DNA  
 <213> Homo sapiens

<400> 5261  
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 120  
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 180  
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 420  
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&lt;210&gt; 5262

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5262

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Ala	Glu	Arg	Pro	Leu	Gln	Asp	Glu	Pro	Ala	Ala	Ala	Ala	Ala	Gly	Pro
			20					25					30		
Gly	Lys	Gly	Arg	Phe	Leu	Val	Arg	Ile	Cys	Phe	Gln	Gly	Asp	Glu	Gly
			35				40				45				
Ala	Cys	Pro	Thr	Arg	Asp	Phe	Val	Val	Gly	Ala	Leu	Ile	Leu	Arg	Ser
	50						55				60				

```

Ile Gly Met Asp Pro Ser Asp Ile Tyr Ala Val Ile Gln Ile Pro Gly
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                      85                      90                      95
Phe Leu Arg Val Tyr Glu Glu Lys Arg Glu Gln Glu Asp Cys Trp Glu
100                      105                      110
Asn Phe Val Val Leu Leu Gly Arg Ser Lys Ser Ser Leu Lys Thr Leu Phe
115                      120                      125
Ile Leu Phe Arg Asn Glu Thr Val Asp Val Glu Asp Ile Val Thr Trp
130                      135                      140
Leu Lys Arg His Cys Asp Val Leu Ala Val Pro Val Lys Val Thr Asp
145                      150                      155                      160
Arg Phe Gly Ile Trp Thr Gly Glu Tyr Lys Cys Glu Ile Glu Leu Arg
165                      170                      175
Gln Gly Glu Gly Val Arg His Leu Pro Gly Ala Phe Phe Leu Gly
180                      185                      190
Ala Glu Arg Gly Tyr Ser Trp Tyr Lys Gly Gln Pro Lys Thr Cys Phe
195                      200                      205
Lys Cys Gly Ser Arg Thr His Met Ser Gly Ser Cys Thr Gln Asp Arg
210                      215                      220
Cys Phe Arg Cys Gly Glu Glu Gly His Leu Ser Pro Tyr Cys Arg Lys
225                      230                      235                      240
Gly Ile Val Cys Asn Leu Cys Gly Lys Arg Gly His Ala Phe Ala Gln
245                      250                      255
Cys Pro Lys Ala Val His Asn Ser Val Ala Ala Gln Leu Thr Gly Val
260                      265                      270
Ala Gly His
275

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&lt;210&gt; 5263

&lt;211&gt; 319

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5263

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300
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319

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&lt;210&gt; 5264

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5264

```

Met Asp Leu Ile Asn Arg Ala Thr Met Ser Glu Trp Lys Leu Gln Ser
 1           5           10           15
Lys Ile Gln Ile Ser His Ser Trp Glu Gly Leu Lys Leu Val Lys
      20           25           30
Trp His Phe Asn Ile Asn Gln Lys Arg Phe Ser Lys Ala Gln Pro Thr
      35           40           45
Cys Phe Leu Leu Ile Leu Pro Pro Cys Gln Lys Ile Met Cys Ile Tyr
      50           55           60
Phe Gln Leu Leu Leu Met Glu Thr Thr Ala Met Leu Asp Leu Leu Val
      65           70           75           80
Ile Arg Gln Leu Lys Ser Ala Leu Ser Gln Thr Leu Leu Cys His Leu
      85           90           95
Leu Ile Leu Val Leu Ile Cys Ser Arg
      100           105

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&lt;210&gt; 5265

&lt;211&gt; 3203

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5265

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&lt;210&gt; 5266

&lt;211&gt; 853

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5266

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 20 25 30  
 Glu Glu Ile Leu Pro Glu Pro Gly Ser Glu Thr Pro Thr Val Ala Ser  
 35 40 45  
 Glu Ala Leu Ala Glu Leu Leu His Gly Ala Leu Leu Arg Arg Gly Pro  
 50 55 60  
 Glu Met Gly Tyr Leu Pro Gly Pro Pro Leu Gly Pro Glu Gly Gly Glu  
 65 70 75 80  
 Glu Glu Thr Thr Thr Thr Ile Ile Thr Thr Thr Thr Val Thr Thr Thr  
 85 90 95  
 Val Thr Ser Pro Val Leu Cys Asn Asn Asn Ile Ser Glu Gly Glu Gly  
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 Tyr Val Glu Ser Pro Asp Leu Gly Ser Pro Val Ser Arg Thr Leu Gly  
 115 120 125  
 Leu Leu Asp Cys Thr Tyr Ser Ile His Val Tyr Pro Gly Tyr Gly Ile  
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 Glu Ile Gln Val Gln Thr Leu Asn Leu Ser Gln Glu Glu Glu Leu Leu  
 145 150 155 160  
 Val Leu Ala Gly Gly Gly Ser Pro Gly Leu Ala Pro Arg Leu Leu Ala  
 165 170 175  
 Asn Ser Ser Met Leu Gly Glu Gly Gln Val Leu Arg Ser Pro Thr Asn  
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[illegible]

[illegible]

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<210> 5267
<211> 885
<212> DNA
<213> Homo sapiens
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480
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540

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 840  
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 885

<210> 5268

<211> 279

<212> PRT

<213> Homo sapiens

<400> 5268

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			20					25					30		
Tyr	Ala	Pro	Gln	Thr	Tyr	Ala	Ala	Ile	Pro	Ser	Leu	His	Phe	Pro	Ala
		35					40					45			
Thr	Lys	Gly	His	Leu	Ser	Asn	Arg	Ala	Ile	Ile	Arg	Ala	Pro	Ser	Val
	50					55					60				
Arg	Glu	Ile	Tyr	Met	Asn	Val	Pro	Val	Gly	Ala	Ala	Gly	Val	Arg	Gly
65					70					75				80	
Leu	Gly	Gly	Arg	Gly	Tyr	Leu	Ala	Tyr	Thr	Gly	Leu	Gly	Arg	Gly	Tyr
			85						90					95	
Gln	Val	Lys	Gly	Asp	Lys	Arg	Glu	Asp	Lys	Leu	Tyr	Asp	Ile	Leu	Pro
			100					105					110		
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Ile	Lys	Leu	Ala	Pro	Gln	Ile	Leu	Glu	Glu	Ile	Cys	Gln	Lys	Asn	Asn
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Trp	Gly	Gln	Pro	Val	Tyr	Gln	Leu	His	Ser	Ala	Ile	Gly	Gln	Asp	Gln
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Asn	Pro	Ala	Ile	His	Pro	Phe	Thr	Pro	Pro	Lys	Leu	Ser	Ala	Phe	Val
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Asp	Glu	Ala	Lys	Thr	Tyr	Ala	Ala	Glu	Tyr	Thr	Leu	Gln	Thr	Leu	Gly
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Ile	Pro	Thr	Asp	Gly	Gly	Asp	Gly	Thr	Met	Ala	Thr	Ala	Ala	Ala	Ala
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Ala	Thr	Ala	Phe	Pro	Gly	Tyr	Ala	Val	Pro	Asn	Ala	Thr	Ala	Pro	Val
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Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala
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Ala	Tyr	Thr	Thr	Tyr	Glu	Val	Tyr	Pro	Thr	Phe	Ala	Val	Thr	Ala	Arg
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Gly	Asp	Gly	Tyr	Gly	Thr	Phe									

275

&lt;210&gt; 5269

&lt;211&gt; 1177

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5269

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420  
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1080  
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1177

&lt;210&gt; 5270

&lt;211&gt; 327

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5270

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Met Asn Glu Gln Ser Gln Lys Thr Gln Asn Ile Ser Ser Phe Asp Ser
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 20          25          30
Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ile Ala Asp Pro Pro
 35          40          45
Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
 50          55          60
Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
 65          70          75          80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
 85          90          95
Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
100          105          110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
115          120          125
Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
130          135          140
Phe Ser Lys Ala Asp Val Ala Gln Met Val Arg Lys Ala Pro Phe Leu
145          150          155          160
Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
165          170          175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
180          185          190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
195          200          205
Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
210          215          220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
225          230          235          240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
245          250          255
Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
260          265          270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
275          280          285
Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
290          295          300
Asp Glu Ile Phe Cys Glu Glu Ile Ala Lys Ala Ser Val Gln Asp Phe
305          310          315          320
Glu Lys Phe Leu Lys Thr Leu
325

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&lt;210&gt; 5271

&lt;211&gt; 1185

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5271

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120

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&lt;210&gt; 5272

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5272

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 Glu Cys Gly Asn Val Thr Gly Ala Ser Ser Pro Ser Arg Thr Pro Phe  
 35 40 45  
 Gln Asn Pro Ser Leu Leu Val His Lys Gln Lys Leu Ala Lys Trp  
 50 55 60  
 Val Ala Ile Gln Ser Val Ser Ala Trp Pro Glu Lys Arg Gly Glu Ile  
 65 70 75 80  
 Arg Arg Met Met Glu Val Ala Ala Ala Asp Val Lys Gln Leu Gly Gly

85 90 95  
 Ser Val Glu Leu Val Asp Ile Gly Lys Gln Lys Leu Pro Asp Gly Ser  
 100 105 110  
 Glu Ile Pro Leu Pro Pro Ile Leu Leu Gly Arg Leu Gly Ser Asp Pro  
 115 120 125  
 Gln Lys Lys Thr Val Cys Ile Tyr Gly His Leu Asp Val Gln Pro Ala  
 130 135 140  
 Ala Leu Glu Asp Gly Trp Asp Ser Glu Pro Phe Thr Leu Val Glu Arg  
 145 150 155 160  
 Asp Gly Lys Leu Tyr Gly Arg Gly Ser Thr Asp Asp Lys Gly Pro Val  
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 Ala Gly Trp Ile Asn Ala Leu Glu Ala Tyr Gln Lys Thr Gly Gln Glu  
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 Ser Glu Gly Leu Asp Glu Leu Ile Phe Ala Arg Lys Asp Thr Phe Phe  
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 Val Ala Ala Val Thr Glu Glu Glu His Lys Leu Tyr Asp Asp Ile Asp  
 305 310 315 320  
 Phe Asp Ile Glu Glu Phe Ala Lys Asp Val Gly Ala Gln Ile Leu Leu  
 325 330 335  
 His Ser His Lys Lys Asp Ile Leu Met His Arg Trp Arg Tyr Pro Ser  
 340 345 350  
 Leu Ser Leu His Gly Ile Glu Gly Ala Phe Ser Gly Ser Gly Ala Lys  
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 Thr Val Ile Pro Lys Lys Val Val Gly Lys Phe Ser Ile Arg Leu Val  
 370 375 380  
 Pro  
 385

&lt;210&gt; 5273

&lt;211&gt; 4580

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5273

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 4560  
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 4580

&lt;210&gt; 5274

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5274

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 20 25 30  
 Val Thr Pro Arg Ile Tyr Val Gly Asn Ala Ser Val Ala Gln Asp Ile  
 35 40 45  
 Pro Lys Leu Gln Lys Leu Gly Ile Thr His Val Leu Asn Ala Ala Glu  
 50 55 60  
 Gly Arg Ser Phe Met His Val Asn Thr Asn Ala Asn Phe Tyr Lys Asp

65					70					75					80
Ser	Gly	Ile	Thr	Tyr	Leu	Gly	Ile	Lys	Ala	Asn	Asp	Thr	Gln	Glu	Phe
				85					90					95	
Asn	Leu	Ser	Ala	Tyr	Phe	Glu	Arg	Ala	Ala	Asp	Phe	Ile	Asp	Gln	Ala
			100					105					110		
Leu	Ala	Gln	Lys	Asn	Gly	Arg	Val	Leu	Val	His	Cys	Arg	Glu	Gly	Tyr
		115					120					125			
Ser	Arg	Ser	Pro	Thr	Leu	Val	Ile	Ala	Tyr	Leu	Met	Met	Arg	Gln	Lys
	130					135					140				
Met	Asp	Val	Lys	Ser	Ala	Leu	Ser	Ile	Val	Arg	Gln	Asn	Arg	Glu	Ile
	145			150						155				160	
Gly	Pro	Asn	Asp	Gly	Phe	Leu	Ala	Gln	Leu	Cys	Gln	Leu	Asn	Asp	Arg
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Leu	Ala	Lys	Glu	Gly	Lys	Leu	Lys	Pro							
			180					185							

&lt;210&gt; 5275

&lt;211&gt; 810

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5275

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tatctgttac ggtaacttca tcagcccgcc aagatggcga tgcaagcggc caagagggcg
240
aacattcgac ttccacctga agtaaatcgg atattgtata taagaaattt gccatacaaa
300
atcacagctg aagaaatgta tgatatattt gggaaatatg gacctattcg tcaaatcaga
360
gtggggaaca cacctgaaac tagaggaaca gcttatgttg tctatgagga catctttgat
420
gccaagaatg catgtgatca cctatcgagg ttaaatgttt gtaacagata ccttgtgttg
480
ttgtactata atgccaacag ggcatttcag aagatggaca caaagaagaa ggaggaacag
540
ttgaagcttc tcaaggagaa atatggcatc aacacagatc caccaaaata aatgttttct
600
acattttcat ttggactaaa tcccaogaat gacaactacc accttttttt cctttttaat
660
taatactaaa tatttgtgatt tcttatttga ggttcaaaat gacctgcttg aaactttgat
720
acatattgga atacattatg ttaataaact tgtagctttt tgtgaaacaa aaaaaaaaaa
780
tcgacgcggc cggcaattta gtagtagtag
810

```

&lt;210&gt; 5276

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5276

```

Met Ala Met Gln Ala Ala Lys Arg Ala Asn Ile Arg Leu Pro Pro Glu
 1              5              10              15
Val Asn Arg Ile Leu Tyr Ile Arg Asn Leu Pro Tyr Lys Ile Thr Ala
      20              25              30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
      35              40              45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
      50              55              60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
      65              70              75              80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
      85              90              95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
      100             105             110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
      115             120             125

```

&lt;210&gt; 5277

&lt;211&gt; 612

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5277

```

atctacgact tcattggtga ccgaagccc cacaagaagc tgggcccgca ggccctggctg
 60
gtggcgcgcca tcacggccac ggagctgctc atcgtggtga agtacgaccc ccacacgctc
120
accctgtccc tgcccttcta catctcccag tgctggaccc tcggctccgt cctggcgctc
180
acctggacgg cctggcgctt ctctctgcgg gacatcacat tgagggtacaa ggagaccggg
240
tggcagaagt ggcagaacaa ggatgaccag ggcagcaccg tcggcaacgg ggaccagcac
300
ccactggggc tggacgaaga cctgctgggg cctgggggtg ccgagggcga gggagcacca
360
actccaaact gacctgggcc gtggctgcct cgtgagcctc ccagagccca ggcctccgtg
420
gcctcctcct gtgtgagtc caccaggagc cactgtgccg gccttgccct caaggttttt
480
tgctttttct ctgtgcacct ggcgaggctg aaggcgaggg gtggaggagg cccagcaca
540
gcctcatctc catgtgtaca cgtgtgtacg tgtgtatgcg tgtgtgtacg tgtgtatgcg
600
tgtgtgtacg tg
612

```

&lt;210&gt; 5278

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5278

```

Ile Tyr Asp Phe Met Asp Asp Pro Lys Pro His Lys Lys Leu Gly Pro
1           5           10           15
Gln Ala Trp Leu Val Ala Ala Ile Thr Ala Thr Glu Leu Leu Ile Val
20           25           30
Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile
35           40           45
Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val
50           55           60
Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg
65           70           75           80
Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn
85           90           95
Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly
100          105          110
Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn
115          120

```

&lt;210&gt; 5279

&lt;211&gt; 1225

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5279

```

atcaatggag cagaggagaa aattctagaa gatttcogaa aaaccacag cctgatgcc
60
cctgactttc agctgcaggc catgattcag gcagcaggaa agcttgtgtt gattgataaa
120
ctactcccta agctgattgc aggtggccac aaagtactca tcttctccca gatggtgcgc
180
tgctctgaca tcctagaaga ttatttaac cagagaagat acacctatga acgtattgat
240
gggcgagtag ggggaaacct gcgccaggct gccatcgacc gcttcagcaa gcttgactca
300
gaccgctttg tcttcttact gtgcaccaga gcgggaggcc tggggatcaa tctcacagct
360
gctgatacct gcatcatatt tgattctgac tggaaccac aaaatgactt gcaggctcag
420
gcccgatgtc accgcataag ccagagcaaa gctgtgaagg tgtatcgctt catcactcga
480
aattcctacg agcgcgagat gtttgacaag gccagcctaa agctggggct ggacaaggct
540
gttcttcaga catcaaccga aaggcgcgca ccaatgggta cagcactctc aaaatggag
600
gtggaggacc tactccggaa aggtgcttat ggagccttaa tggatgaaga agatgaaggc
660
tccaagtctt gtgaagaaga catagaccag attctgcaga ggcaaacga caccatcacc
720
atccagctcg aggggaaagg gtccactttt gccaaaggcta gctttgtggc ttcaggaaac
780
agaacagata ttcccttaga tgatcctaac ttttggcaga aatgggctaa aatagctgaa
840
ctagacactg aagcaaagaa tgaaaaggaa agcttagtga tcgaccgacc tcgcgtgaga
900

```

aagcagacca aacactacaa ctcgtttgag gaagacgagc tcattggagtt ttacagagtta  
 960  
 gacagcgact cagacgaaag gcccacgaga tccaggcgcc tcaatgacaa agccaggcg  
 1020  
 tacctccgag cggagtgctt cgggtagag aagaacctgc tcatttttg cgtggggccg  
 1080  
 tggaaaggaca tctgactca tggccgattc aagtggcatc tgaacgagaa ggacatggag  
 1140  
 atgatttgcc gtgcccctctc ggtgtactgt gtcaagcatt ataaggggga cgagaagatc  
 1200  
 aagagtttca ttgggaact gatca  
 1225

&lt;210&gt; 5280

&lt;211&gt; 408

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5280

Ile	Asn	Gly	Ala	Glu	Glu	Lys	Ile	Leu	Glu	Asp	Phe	Arg	Lys	Thr	His
1				5					10					15	
Ser	Pro	Asp	Ala	Pro	Asp	Phe	Gln	Leu	Gln	Ala	Met	Ile	Gln	Ala	Ala
		20						25					30		
Gly	Lys	Leu	Val	Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Ile	Ala	Gly
		35					40					45			
Gly	His	Lys	Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile
	50					55				60					
Leu	Glu	Asp	Tyr	Leu	Ile	Gln	Arg	Arg	Tyr	Thr	Tyr	Glu	Arg	Ile	Asp
65					70				75					80	
Gly	Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ala	Ile	Asp	Arg	Phe	Ser
			85					90						95	
Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala	Gly
			100					105						110	
Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile	Phe	Asp
		115					120					125			
Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala	Arg	Cys	His
		130				135					140				
Arg	Ile	Gly	Gln	Ser	Lys	Ala	Val	Lys	Val	Tyr	Arg	Leu	Ile	Thr	Arg
145					150					155				160	
Asn	Ser	Tyr	Glu	Arg	Glu	Met	Phe	Asp	Lys	Ala	Ser	Leu	Lys	Leu	Gly
			165					170						175	
Leu	Asp	Lys	Ala	Val	Leu	Gln	Thr	Ser	Thr	Glu	Arg	Ala	Ala	Pro	Met
		180					185						190		
Gly	Thr	Ala	Leu	Ser	Lys	Met	Glu	Val	Glu	Asp	Leu	Leu	Arg	Lys	Gly
		195				200						205			
Ala	Tyr	Gly	Ala	Leu	Met	Asp	Glu	Glu	Asp	Glu	Gly	Ser	Lys	Phe	Cys
		210				215					220				
Glu	Glu	Asp	Ile	Asp	Gln	Ile	Leu	Gln	Arg	Arg	Thr	His	Thr	Ile	Thr
225					230					235				240	
Ile	Gln	Ser	Glu	Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val
				245				250						255	
Ala	Ser	Gly	Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp
			260					265				270			
Gln	Lys	Trp	Ala	Lys	Ile	Ala	Glu	Leu	Asp	Thr	Glu	Ala	Lys	Asn	Glu

```

      275              280              285
Lys Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys
  290              295              300
His Tyr Asn Ser Phe Glu Glu Asp Glu Leu Met Glu Phe Ser Glu Leu
  305              310              315              320
Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp
      325              330              335
Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn
      340              345              350
Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly
      355              360              365
Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg
      370              375              380
Ala Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile
  385              390              395              400
Lys Ser Phe Ile Trp Glu Leu Ile
      405

```

&lt;210&gt; 5281

&lt;211&gt; 336

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5281

```

tgatcaacaa tacttttcag agtctcttgg ggtgtgatga gttaagcttc ctactggatg
  60
aaatgcaaac cgcccaaaa aaataccagg agcttaagaa tatttgcagc tatagggctc
  120
aggcattccct ggtactcaca ggtctgacag ccacagtgtg agacacagct atttcttcag
  180
aagagaaaaa acaacgcatg tcattaatga gacatcacat gggacaatca ttgtccaaaag
  240
aagttgcaca tgtcctcacc aaacctggag cagatcacga ttgggaaaaa ctagagaaaag
  300
acttgagatt gctcattaat ggggattatg aagaag
  336

```

&lt;210&gt; 5282

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5282

```

Met Gln Thr Ala Gln Asn Lys Tyr Gln Glu Leu Lys Asn Ile Cys Ser
  1              5              10              15
Tyr Arg Ala Gln Ala Phe Leu Val Leu Thr Gly Leu Thr Ala Thr Val
      20              25              30
Gly Asp Thr Ala Ile Ser Ser Glu Glu Lys Thr Gln Arg Met Ser Leu
      35              40              45
Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val
      50              55              60
Leu Thr Lys Pro Gly Ala Asp His Asp Trp Glu Asn Leu Glu Lys Asp
      65              70              75              80
Leu Arg Leu Leu Ile Asn Gly Asp Tyr Glu Glu

```

85

90

&lt;210&gt; 5283

&lt;211&gt; 1989

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5283

naggccgctt gggcgcaactt gcggggtcac ctgtgccgg aggagaaatg gcttccctga  
 60  
 ggcaagtgtg acctacattc ccagcccacc agcctgacgc ccagccaggg agagagtacc  
 120  
 atggatggca tcattgaaca gaagagcatg ctgggtgcaca gtaaaatcag tgatgctggc  
 180  
 aagaggaatg gtttaattaa caccagaaac ttgatggccg agagcagaga tggctctggtg  
 240  
 tctgtttacc cagcgcccca gtaccagagc caccgggtgg gggccagcac agtgccgggc  
 300  
 agcctggaca gcagcaggag tgagccgatg cagcagctgc tggaccccaa caccctgcag  
 360  
 cagtcagtgg agtcccgccta ccggcccaac atcatcctct attcagaggg cgtgctgcgc  
 420  
 tcctgggggg acggtgtggc cgcgactgc tgcgagacca ccttcatcga ggaccggtcg  
 480  
 cccaccaaag acagcctcga gtaccgggat ggaagtcca ttgacctctc agctgatgac  
 540  
 ataaaaatcc acaccctgtc ctacgatgtg gaggaggagg aggagtcca ggagctggag  
 600  
 agcgactact caagcgacac agagagttag gacaatttcc tcatgatgcc cccgctggagc  
 660  
 caccctgggc tcagtgtctt ctccatgctc tgcgtctctt gccctctggg catcgagcc  
 720  
 ttctaattgt cccatgagac caacaaagcc gtggccaagg gggacttgca ccagccagc  
 780  
 accagctccc ggcggggccc attcctggca gtgctgtcca tcaccattgg gactggcgtc  
 840  
 tatgtgggag tggccgtggc cctcatcgcc tacctctcca agaacaacca cctgtgagct  
 900  
 tcctgcgaat ggagggggag cccccgggc cagggtctgtg tggacgtgga ggaagcaggc  
 960  
 ataccgcatg atgctgtaca gtacaaatga ttgccaaatg atgccacgaa gccctgggat  
 1020  
 ttccatccca tggatttatt ttgtttttat cctttaattt catgttcaca gcactgtgta  
 1080  
 gagcaccaga cagacgggca ctgctaatac ttccaaagga agctccaaa gatccagcc  
 1140  
 cgcaaggctg tctctggatg gattctgggt gatgaatggc aacgcggctc tctgcagcct  
 1200  
 gccagtgcgc agagtgccac cgcattagca atatacaaac agtccaaaaa agtgtttatt  
 1260  
 ttttatggaa tacggtgcaa taggcagagg acaagggaca catcactctt ctgtctgtgg  
 1320  
 ccctgctgga gtcctttgtg cccccggag tccacagcc ttcctgcaa gacgagaatg  
 1380

gggtctgggaa gaaagaggca acaccacggc tggcaggagc cccgctgcac tgctctgcag  
 1440  
 acccattggc ctgaccctga gaagcagagc cagcaaaaggc cgggacctgc ccctctttct  
 1500  
 ttcccttcac accaccccag cctcaggatg tcaagccacc tccggaacgt gtctacactc  
 1560  
 cacagctacc ccgcagcaat acgcactctt gggacctcgc tgatctagga tggggaggga  
 1620  
 ggccaccgcc cctcccaaga ctctcaaga aagagccccg cgggtgctcc ggaaactcga  
 1680  
 ggcaactgcag ctatgggcac tgcctcagcc taaagacaca gggggcgctc ccaatcaccg  
 1740  
 cgctggcgga tgctcaccgc gtcataagca gaaactagtg atcctggaaa tgagatgggc  
 1800  
 cttactctgt cgactaaatg aatagctatt ttcttgctat tttttaaagt gcaactcttg  
 1860  
 cttcatgctg cttaagttac cagatgaatg ctgagaaata agtaatcaca gacattttaa  
 1920  
 taccatttca ttgtgtttt acgagtgttc attacttaac aaaaaattat cttttagctt  
 1980  
 ttctgctta  
 1989

&lt;210&gt; 5284

&lt;211&gt; 258

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5284

Met Asp Gly Ile Ile Glu Gln Lys Ser Met Leu Val His Ser Lys Ile  
 1 5 10 15  
 Ser Asp Ala Gly Lys Arg Asn Gly Leu Ile Asn Thr Arg Asn Leu Met  
 20 25 30  
 Ala Glu Ser Arg Asp Gly Leu Val Ser Val Tyr Pro Ala Pro Gln Tyr  
 35 40 45  
 Gln Ser His Arg Val Gly Ala Ser Thr Val Pro Ala Ser Leu Asp Ser  
 50 55 60  
 Ser Arg Ser Glu Pro Met Gln Gln Leu Leu Asp Pro Asn Thr Leu Gln  
 65 70 75 80  
 Gln Ser Val Glu Ser Arg Tyr Arg Pro Asn Ile Ile Leu Tyr Ser Glu  
 85 90 95  
 Gly Val Leu Arg Ser Trp Gly Asp Gly Val Ala Ala Asp Cys Cys Glu  
 100 105 110  
 Thr Thr Phe Ile Glu Asp Arg Ser Pro Thr Lys Asp Ser Leu Glu Tyr  
 115 120 125  
 Pro Asp Gly Lys Phe Ile Asp Leu Ser Ala Asp Asp Ile Lys Ile His  
 130 135 140  
 Thr Leu Ser Tyr Asp Val Glu Glu Glu Glu Phe Gln Glu Leu Glu  
 145 150 155 160  
 Ser Asp Tyr Ser Ser Asp Thr Glu Ser Glu Asp Asn Phe Leu Met Met  
 165 170 175  
 Pro Pro Arg Asp His Leu Gly Leu Ser Val Phe Ser Met Leu Cys Cys  
 180 185 190  
 Phe Trp Pro Leu Gly Ile Ala Ala Phe Tyr Leu Ser His Glu Thr Asn

	195		200		205										
Lys	Ala	Val	Ala	Lys	Gly	Asp	Leu	His	Gln	Ala	Ser	Thr	Ser	Ser	Arg
	210				215					220					
Arg	Ala	Leu	Phe	Leu	Ala	Val	Leu	Ser	Ile	Thr	Ile	Gly	Thr	Gly	Val
225				230					235						240
Tyr	Val	Gly	Val	Ala	Val	Ala	Leu	Ile	Tyr	Leu	Ser	Lys	Asn	Asn	
			245					250					255		

His Leu

&lt;210&gt; 5285

&lt;211&gt; 2155

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5285

nnacgcgtgc agcaaagaat ggaggagtcg gaaccggaac ggaagcgggc tcgcaccgac  
 60  
 gaggtgcctg ccggaggaag ccgctccgag gcggaagatg aggacgacga ggactactgtg  
 120  
 ccctatgtgc cgttacggca gcgccggcag ctactgtctc agaagctgct gcagcgaaga  
 180  
 cgcaagggag ctgcggagga agagcagcag gacagcggtg gtgaaccccg gggagatgag  
 240  
 gacgacatcc cgctaggccc tcagtccaac gtcagcctcc tggatcagca ccagcacctt  
 300  
 aaagagaagg ctgaagcgcg caaagagtct gccaaaggaga agcagctgaa ggaagaagag  
 360  
 aagatccttg agagtgttgc cgagggccga gcattgatgt cagtgaagga gatggctaag  
 420  
 ggcatctagt atgatgacct catcaaaacc agctggactc cccccgtta tgttctgagc  
 480  
 atgtctgaag agcgacatga gcgcgtgcgg aagaaatacc acatcctggt ggaggggagac  
 540  
 ggtatccccc caccatcaa gagcttcaag gaaatgaagt ttctgcagc catcctgaga  
 600  
 ggctgaaga agaaaggcat tcaccaccca acaccattc agatccaggg catccccacc  
 660  
 attctatctg gccgtgacat gataggcatc gctttcacgg gttcaggcaa gacactggtg  
 720  
 ttcacgttgc ccgtcatcat gttctgcctg gaacaagaga agagggttacc cttctcaaa  
 780  
 gcgcaggggc cctatggact catcatctgc ccctcgccgg agctggcccg gcagaccat  
 840  
 ggcacatctg agtactactg ccgcctgctg caggaggaca gtcaccact cctgcgctgc  
 900  
 gccctctgca ttgggggcat gtccgtgaaa gacgagatgg agaccatccg acacggtgta  
 960  
 cacatgatgg tggccacccc ggggcgcctc atggatttgc tgcagaagaa gatggctcagc  
 1020  
 ctgacatctc gtcgctacct ggcctgggac gaggetgacc gcatgatcga catgggcttc  
 1080  
 gagggtgaca tccgtacat cttctcctac ttcaagggcc agcgacagac cctgctcttc  
 1140

agtgccacca tgccgaagaa gattcagaac ttgctaaga gtgcccttgt aaagcctgtg  
 1200  
 accatcaatg tggggcgctgc tggggctgcc agcctggatg tcattccagga ggtagaatat  
 1260  
 gtgaaggagg aggcccaagat ggtgtacctg ctccagtgcc tgcagaagac acccccgcc  
 1320  
 gtactcatct ttgcagagaa gaaggcagac tgggacgcca tccacgagta cctgctgtctc  
 1380  
 aaggggggtt aggccttagc catccatggg ggcaaaagacc aggaggaacg gactaaggcc  
 1440  
 atcgaggcat tccgggaggg caagaaggat gtccctagtag ccacagacgt tgcctccaag  
 1500  
 ggccctggact tcctcgccat ccagcacgtc atcaattatg acatgcgaga ggagattgag  
 1560  
 aactatgtac accgatttgg ccgcaccggg cgctcgggaa acacaggcat gcgactatcc  
 1620  
 ttcatacaaa aagcgtgtga tgagtcagtg ctgatggacc tcaaacgct gctgctagaa  
 1680  
 gccaaagcaga aggtgccgcc cgtgctgcag gtgctgcatt gcggggatga gtccatgctg  
 1740  
 gacattggag gagagcgagg ctgtgccttc tgcgggggcc tgggtcatcg gatcactgac  
 1800  
 tgccccaac tcgaggctat gcagaccaag cagggtacga acatcggtcg caaggactac  
 1860  
 ctggcccaca gctccatgga cttctgagcc gacagtcttc cttctctcc aagaggctc  
 1920  
 agtccccaag actgccacca gtctacacat acagcagccc cctggacaga atcagcattt  
 1980  
 cagctcagct ggctgggaat gggccaggct ggtcctgctt gctgttccc tgtgctcttc  
 2040  
 agaattactg tttttgtttc cttttacccc agctgccatt aaagcccaaa cctctagccc  
 2100  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa  
 2155

&lt;210&gt; 5286

&lt;211&gt; 628

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5286

Xaa	Arg	Val	Gln	Gln	Arg	Met	Glu	Glu	Ser	Glu	Pro	Glu	Arg	Lys	Arg
1				5				10					15		
Ala	Arg	Thr	Asp	Glu	Val	Pro	Ala	Gly	Gly	Ser	Arg	Ser	Glu	Ala	Glu
			20					25					30		
Asp	Glu	Asp	Asp	Glu	Asp	Tyr	Val	Pro	Tyr	Val	Pro	Leu	Arg	Gln	Arg
			35				40					45			
Arg	Gln	Leu	Leu	Leu	Gln	Lys	Leu	Leu	Gln	Arg	Arg	Arg	Lys	Gly	Ala
			50			55				60					
Ala	Glu	Glu	Glu	Gln	Gln	Asp	Ser	Gly	Ser	Glu	Pro	Arg	Gly	Asp	Glu
			65			70			75					80	
Asp	Asp	Ile	Pro	Leu	Gly	Pro	Gln	Ser	Asn	Val	Ser	Leu	Leu	Asp	Gln
				85				90					95		
His	Gln	His	Leu	Lys	Glu	Lys	Ala	Glu	Ala	Arg	Lys	Glu	Ser	Ala	Lys

100 105 110  
 Glu Lys Gln Leu Lys Glu Glu Glu Lys Ile Leu Glu Ser Val Ala Glu  
 115 120 125  
 Gly Arg Ala Leu Met Ser Val Lys Glu Met Ala Lys Gly Ile Thr Tyr  
 130 135 140  
 Asp Asp Pro Ile Lys Thr Ser Trp Thr Pro Pro Arg Tyr Val Leu Ser  
 145 150 155 160  
 Met Ser Glu Glu Arg His Glu Arg Val Arg Lys Lys Tyr His Ile Leu  
 165 170 175  
 Val Glu Gly Asp Gly Ile Pro Pro Pro Ile Lys Ser Phe Lys Glu Met  
 180 185 190  
 Lys Phe Pro Ala Ala Ile Leu Arg Gly Leu Lys Lys Lys Gly Ile His  
 195 200 205  
 His Pro Thr Pro Ile Gln Ile Gln Gly Ile Pro Thr Ile Leu Ser Gly  
 210 215 220  
 Arg Asp Met Ile Gly Ile Ala Phe Thr Gly Ser Gly Lys Thr Leu Val  
 225 230 235 240  
 Phe Thr Leu Pro Val Ile Met Phe Cys Leu Glu Gln Glu Lys Arg Leu  
 245 250 255  
 Pro Phe Ser Lys Arg Glu Gly Pro Tyr Gly Leu Ile Ile Cys Pro Ser  
 260 265 270  
 Arg Glu Leu Ala Arg Gln Thr His Gly Ile Leu Glu Tyr Tyr Cys Arg  
 275 280 285  
 Leu Leu Gln Glu Asp Ser Ser Pro Leu Leu Arg Cys Ala Leu Cys Ile  
 290 295 300  
 Gly Gly Met Ser Val Lys Glu Gln Met Glu Thr Ile Arg His Gly Val  
 305 310 315 320  
 His Met Met Val Ala Thr Pro Gly Arg Leu Met Asp Leu Leu Gln Lys  
 325 330 335  
 Lys Met Val Ser Leu Asp Ile Cys Arg Tyr Leu Ala Leu Asp Glu Ala  
 340 345 350  
 Asp Arg Met Ile Asp Met Gly Phe Glu Gly Asp Ile Arg Thr Ile Phe  
 355 360 365  
 Ser Tyr Phe Lys Gly Gln Arg Gln Thr Leu Leu Phe Ser Ala Thr Met  
 370 375 380  
 Pro Lys Lys Ile Gln Asn Phe Ala Lys Ser Ala Leu Val Lys Pro Val  
 385 390 395 400  
 Thr Ile Asn Val Gly Arg Ala Gly Ala Ala Ser Leu Asp Val Ile Gln  
 405 410 415  
 Glu Val Glu Tyr Val Lys Glu Glu Ala Lys Met Val Tyr Leu Leu Glu  
 420 425 430  
 Cys Leu Gln Lys Thr Pro Pro Pro Val Leu Ile Phe Ala Glu Lys Lys  
 435 440 445  
 Ala Asp Val Asp Ala Ile His Glu Tyr Leu Leu Leu Lys Gly Val Glu  
 450 455 460  
 Ala Val Ala Ile His Gly Gly Lys Asp Gln Glu Glu Arg Thr Lys Ala  
 465 470 475 480  
 Ile Glu Ala Phe Arg Glu Gly Lys Lys Asp Val Leu Val Ala Thr Asp  
 485 490 495  
 Val Ala Ser Lys Gly Leu Asp Phe Pro Ala Ile Gln His Val Ile Asn  
 500 505 510  
 Tyr Asp Met Pro Glu Glu Ile Glu Asn Tyr Val His Arg Ile Gly Arg  
 515 520 525  
 Thr Gly Arg Ser Gly Asn Thr Gly Ile Ala Thr Thr Phe Ile Asn Lys

```

      530                      535                      540
Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu
545                      550                      555                      560
Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp
      565                      570                      575
Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly
      580                      585                      590
Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln
      595                      600                      605
Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser
      610                      615                      620
Ser Met Asp Phe
625

```

&lt;210&gt; 5287

&lt;211&gt; 581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5287

```

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60
agccccgcgc cgcaactccat cccacacaggc tggggacggg ccagggtgcgg ctgtgtgggt
120
tcgggagcgg agttgcagaa tccaaggacc cattttgttc ttctccgca ctgctttatg
180
ggaggcatta tggcccccaa agacataatg acaataactc atgctaaatc catcctcaat
240
tcaatgaact ccctcaggaa gagcaatacc ctctgtgatg tgacattgag agtagagcag
300
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360
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420
tctaccatgg aaattttatt ggactttgtg tacacagaaa cggatcatgt gacagtggag
480
aatgtacaag aactgcttcc tgcagcctgt ctgcttcagt tgaagggtgt gaaacaagcc
540
tgctgtgagt tcttagaaag tcagttggac ccttcacgcg t
581

```

&lt;210&gt; 5288

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5288

```

Xaa Glu Pro Pro Glu Pro Pro Gly Leu Gly Gly Ala Ser Ala Pro Pro
1          5          10          15
Glu Pro Pro Ala Ser Pro Ala Pro His Ser Ile Pro Thr Gly Trp Gly
20          25          30
Arg Ala Arg Cys Gly Cys Val Gly Ser Gly Ala Glu Leu Gln Asn Pro
35          40          45
Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

```

```

      50              55              60
Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn
65              70              75              80
Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu
      85              90              95
Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala
      100              105              110
Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys
      115              120              125
Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu
      130              135              140
Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu
145              150              155              160
Asn Val Gln Glu Leu Leu Pro Ala Ala Cys Leu Leu Gln Leu Lys Gly
      165              170              175
Val Lys Gln Ala Cys Cys Glu Phe Leu Glu Ser Gln Leu Asp Pro Ser
      180              185              190
Arg

```

```

<210> 5289
<211> 361
<212> DNA
<213> Homo sapiens

```

```

<400> 5289
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60
agcactatgg gaagtattgc tcagctatta taggactatg gaatggcatg aaaagcatga
120
caatgaggat actgcttcag cttctgaagg ggaagtatat gataggggtc tgaagaaact
180
tattttgatc ggggctacat taaaaaagaa attagaacat ggacttacac gaatatggca
240
ggatgttcag ctaaaaagtaa aaacctactt gcttggaact gatttgtcta tattcaaata
300
tgatgatttc atctttgttt tggatataat cagcaggttg atgcaagttg gagaagaatt
360
c
361

```

```

<210> 5290
<211> 95
<212> PRT
<213> Homo sapiens

```

```

<400> 5290
Met Leu Ser Tyr Arg Thr Met Glu Trp His Glu Lys His Asp Asn
1              5              10              15
Glu Asp Thr Ala Ser Ala Ser Glu Gly Glu Val Tyr Asp Arg Val Leu
      20              25              30
Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His
      35              40              45
Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr

```

```

      50              55              60
Leu Leu Gly Thr Asp Leu Ser Ile Phe Lys Tyr Asp Asp Phe Ile Phe
65              70              75              80
Val Leu Asp Ile Ile Ser Arg Leu Met Gln Val Gly Glu Glu Phe
      85              90              95

```

<210> 5291  
 <211> 767  
 <212> DNA  
 <213> Homo sapiens

```

<400> 5291
gtcgggaggt tctttgcgct gatagcaggg acgaagacca caccattgac caagaagatg
60
aagatggcca cgcagaagac tcccagcagg gcgtacatgc ccagctctag ctcaagtaca
120
tgctgagggg caggggacat ctctctctcc tcttctctct cctccctggc ttgtgtctcc
180
tccttctctg cctctctctc tgcccgcctc aacttgcccc tcacacctgt gttgcccccg
240
acactgcctg ccacctgcgc ttaccacccc atgggtggctt ctgtggctgg tgggctccaa
300
gcagggtctg atggggagag caggggctgg agtggaggca gggggcagcc ccaccaggc
360
gggtgccagag gccaaaagca cacggtggcg gccccggcgn gcagggtctg ggcgggtgca
420
gagccacatg cagcggcagc ccctcggcgc ctgccccact caccaccacc ccgagctggg
480
caccctgctc ctcagctggc aggatggcac caggctctc ggctgaaacg gacagtccca
540
gtcaggcggg cgtagagctc agctgggcca cagtgtgatc agagaaggac agccataggg
600
agagggccac ctctgtggg gcacacagac acaggcagag acatgagagg gcacgcacgc
660
atgcacagag aaaccactcc cacagagaca ggccacatgg aggagagacc agagagaaaa
720
cagagacaca ggcagataga caaaacacag ggagagaggg gacgcgt
767

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<210> 5292  
 <211> 142  
 <212> PRT  
 <213> Homo sapiens

```

<400> 5292
Gly Ala Gly Thr Ile Ser Ser Ser Ser Ser Ser Ser Ser Leu Ala Leu
1              5              10              15
Val Ser Ser Phe Leu Ala Ser Ser Ser Ala Arg Ser Asn Leu Pro Leu
      20              25              30
Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro
      35              40              45
Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu
      50              55              60
Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

```

65					70					75					80
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg	Ala
				85					90					95	
Gly	Ala	Glu	Pro	His	Ala	Ala	Ala	Ala	Pro	Arg	Arg	Leu	Pro	His	Ser
			100					105					110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp	His
			115				120					125			
Gln	Ala	Pro	Arg	Leu	Lys	Arg	Thr	Val	Pro	Val	Arg	Arg	Ser		
	130					135					140				

&lt;210&gt; 5293

&lt;211&gt; 1428

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5293

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 60  
 cgggtgaccc cagcctcccc cactcgggtt ctgagcttga gctggcggct ctttaactct  
 120  
 gcttactgt tgccttggc aacatccact tccgggagcg agtgcggtt cccccgtca  
 180  
 ccgcggtgcta gggagcgtgg gattccggac tgtgagcggc tgtagtgcg tcgcagctgc  
 240  
 tggcgatccg gcgacctcg gccggcagga ccccgggccc acgcagccgg ggccttctca  
 300  
 acgcctcagt acctcgccgg gaccgccatg gttctgctgc acgtgaagcg gggcgacgag  
 360  
 agccagttcc tgcctgcagg gcctgggagt accgagctgg aggagctcac ggtgcaggtg  
 420  
 gcccgggtct ataatggcg gctcaagggt cagcgctct gctcagaat ggaagaatta  
 480  
 gccgaacatg gcatattttt ccctccta atgcaaggac tgaccgatga tcagattgaa  
 540  
 gaattgaaat tgaaggatga atggggtgaa aaatgcgtac ccagcggagg tgcaagtgtt  
 600  
 aaaaaggatg atattggagc aggaatggg caagctccaa atgagaagat gaagcaagtg  
 660  
 ttaaagaaga ctatagaaga agccaaggca ataatatcta agaaacaagt ggaagccggt  
 720  
 gtctgtgtta ccatggagat ggtgaaagat gccttggacc agcttcgagg cgcggtgatg  
 780  
 attgtttacc ccatggggtt gccaccgtat gatcccatcc gcatggagtt tgaataaag  
 840  
 gaagacttgt cggaacaca ggcagggttc aacgtcatta aagaggcaga ggcgcagctg  
 900  
 tgggtggcag ccaaggagct gagaagaacg aagaagcttt cagactacgt ggggaagaat  
 960  
 gaaaaaacca aaattatcgc caagattcag caaaggggac agggagctcc agcccagag  
 1020  
 cctattatta gcagtgagga gcagaagcag ctgatgctgt actatcacag aagacaagag  
 1080  
 gagctcaaga gattggaaga aaatgatgat gatgcctatt taaactcacc atggcgagat  
 1140

aaactgctt tgaaaagaca ttttcattgga gtgaaagaca taaagtggag accaagatga  
 1200  
 agttcaccag ctgatgacac ttccaagag attagctcac ctttctcta ggcaattata  
 1260  
 atttaaaaaa aaaaaaagg ccacttactg ccctctgtaa aagatgttaa cattttctagt  
 1320  
 tttcttttag tgtgaatttt taaaatagca gttattcaag gttttagaac ttaataaata  
 1380  
 cctagtcaga agaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa  
 1428

<210> 5294

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5294

Met Val Leu Leu His Val Lys Arg Gly Asp Glu Ser Gln Phe Leu Leu  
 1 5 10 15  
 Gln Ala Pro Gly Ser Thr Glu Leu Glu Glu Leu Thr Val Gln Val Ala  
 20 25 30  
 Arg Val Tyr Asn Gly Arg Leu Lys Val Gln Arg Leu Cys Ser Glu Met  
 35 40 45  
 Glu Glu Leu Ala Glu His Gly Ile Phe Leu Pro Pro Asn Met Gln Gly  
 50 55 60  
 Leu Thr Asp Asp Gln Ile Glu Glu Leu Lys Leu Lys Asp Glu Trp Gly  
 65 70 75 80  
 Glu Lys Cys Val Pro Ser Gly Gly Ala Val Phe Lys Lys Asp Asp Ile  
 85 90 95  
 Gly Arg Arg Asn Gly Gln Ala Pro Asn Glu Lys Met Lys Gln Val Leu  
 100 105 110  
 Lys Lys Thr Ile Glu Glu Ala Lys Ala Ile Ile Ser Lys Lys Gln Val  
 115 120 125  
 Glu Ala Gly Val Cys Val Thr Met Glu Met Val Lys Asp Ala Leu Asp  
 130 135 140  
 Gln Leu Arg Gly Ala Val Met Ile Val Tyr Pro Met Gly Leu Pro Pro  
 145 150 155 160  
 Tyr Asp Pro Ile Arg Met Glu Phe Glu Asn Lys Glu Asp Leu Ser Gly  
 165 170 175  
 Thr Gln Ala Gly Leu Asn Val Ile Lys Glu Ala Glu Ala Gln Leu Trp  
 180 185 190  
 Trp Ala Ala Lys Glu Leu Arg Arg Thr Lys Lys Leu Ser Asp Tyr Val  
 195 200 205  
 Gly Lys Asn Glu Lys Thr Lys Ile Ile Ala Lys Ile Gln Gln Arg Gly  
 210 215 220  
 Gln Gly Ala Pro Ala Arg Glu Pro Ile Ile Ser Ser Glu Glu Gln Lys  
 225 230 235 240  
 Gln Leu Met Leu Tyr Tyr His Arg Arg Gln Glu Glu Leu Lys Arg Leu  
 245 250 255  
 Glu Glu Asn Asp Asp Ala Tyr Leu Asn Ser Pro Trp Ala Asp Asn  
 260 265 270  
 Thr Ala Leu Lys Arg His Phe His Gly Val Lys Asp Ile Lys Trp Arg  
 275 280 285  
 Pro Arg

290

&lt;210&gt; 5295

&lt;211&gt; 1451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5295

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aacacataag agtttttact tcacggcagt tcatactggg acctcagacc actgaaggca  
120  
gacagtaacg agcagtgcgt gccgggcccc actttcagag ggggcggaag ggcattcttga  
180  
cacgtgtcat atggtaagag gcgcatccac tcaccaggc ctggtgcagg actctgcaag  
240  
gccctcctga gtaaagagtg gccacgaagg gctgctaggc agcacctact cttggaatca  
300  
agcagggaaa aagtgcacaaa ttggagctgg cgggaggtgt gtgtgcctgc ccacagatg  
360  
gctgtgttga gccacaaagc accaagattc tgttcttcat tcagcaacca ccatgagcc  
420  
tcctgtctta ttccaatcgc atggcaccag cctgaaaacc tctctccctt ctgagaggaa  
480  
tgctggaatg acactccact ctgccccctc ctccctcctt ccttgcctag ggtccatgtg  
540  
aacagcaggc cattgttggg aagtgcctgt tgcagtcatt cttacacccc cacagccact  
600  
gccccacaca cccactgggt gctaccaagg cccgtcaata gatcttgtgt ccaccgagcc  
660  
ctggtgtcca ggtccagcag ccagacaggc tgaagggtcc ctccctgcat cacagagtag  
720  
ccaagcacta caaagaggtt ttcatggcca gattcctgac ggctggcccc ttacagggca  
780  
gatccctgtc ttacaggtgt caaggttggg gggctcctggg tcctccatga ccttgggggg  
840  
ttgctgtgtc cccatcttgg ttcttgagtc tcactccttc aagatgacct tgagagcttt  
900  
aagctcatcc tggttgaggg ggttcaagtt aaaacccttc agctccggtt tgccttgggc  
960  
ctcaaaaagg cggttgacct tcactttaag ttgcttccgc agtttttcta tttctttatc  
1020  
cagatgatct tgatcttttt caatcatttc ctttgtctca gggtaggca tcttgataaa  
1080  
catgttcccg aagcaaacca tcacatcttc agagaggctg agatccttct gcagggccct  
1140  
caggccctct cgattctgat tccttttagt gtccaggctc acaatctgcc gcttgtccgc  
1200  
cagcacctcc tcggcgagct cctccacttc tacaaggtag cgcagcactc gctctgcctc  
1260  
gggtgatagc atagcgccca ccaactccgc ttgcggctct cgcgcgaccc cgggatctcc  
1320  
gcttcgggaa catgtttatc aagatgcctc accctgagac aaaggaaatg attgaaaaag  
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atcaagatca tctggataaa gaaatagaaa aactgcggaa gcaacttaaa gtgaagggtcc  
 1440  
 ccttcacgcg t  
 1451

<210> 5296  
 <211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 5296  
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 1 5 10 15  
 Glu Glu Leu Ala Glu Glu Val Leu Ala Asp Lys Arg Gln Ile Val Asp  
 20 25 30  
 Leu Asp Thr Lys Arg Asn Gln Asn Arg Glu Gly Leu Arg Ala Leu Gln  
 35 40 45  
 Lys Asp Leu Ser Leu Ser Glu Asp Val Met Val Cys Phe Gly Asn Met  
 50 55 60  
 Phe Ile Lys Met Pro His Pro Glu Thr Lys Glu Met Ile Glu Lys Asp  
 65 70 75 80  
 Gln Asp His Leu Asp Lys Glu Ile Glu Lys Leu Arg Lys Gln Leu Lys  
 85 90 95  
 Val Lys Val Asn Arg Leu Phe Glu Ala Gln Gly Lys Pro Glu Leu Lys  
 100 105 110  
 Gly Phe Asn Leu Asn Pro Leu Asn Gln Asp Glu Leu Lys Ala Leu Lys  
 115 120 125  
 Val Ile Leu Lys Gly  
 130

<210> 5297  
 <211> 5318  
 <212> DNA  
 <213> Homo sapiens

<400> 5297  
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 agcttcccat tgtctgagac tctctgctgt gattgtggaa aaggacacct ctctctgtgg  
 120  
 gagtgccttg gtgaagcaca tgagccttgt gactgccaaa catggaagaa ttggctgcaa  
 180  
 aaaaataaccg aatgaaacc agaagaactt gtgggagtta gtgaagccta cgaggatgcc  
 240  
 gccaatgtgc tctggttatt aactaactcc aagccttgtg ccaactgtaa gtctccaata  
 300  
 cagaagaatg aaggctgcaa tcacatgcag tgtgctaagt gcaagtatga cttttgtctg  
 360  
 atttgccttg aagagtggaa aaaacatagt tcgtccactg gaggttatta cggatgtact  
 420  
 cgctatgaag tcattcaaca cgtggaggag caatccaagg aatgactgt ggaggctgag  
 480  
 aaaaaacaca aacgatttca ggaacttgac agatttatgc actattatac aagatttaaa  
 540

aaccatgagc atagttatca gctagaacaa cgccttctta aaacagccaa agaaaagatg  
600  
gagcaattga gcagagctct caaagaaact gaaggaggct gtccagatag cactttcatt  
660  
gaagatgcag ttcatgtgct cttaaaaact cggcgcattc tcaagtgttc tttccatat  
720  
ggatttttct tggaacctaa aagcacaag aaagaaattt ttgaactaat gcaaacagac  
780  
ctagaaatgg tcactgaaga ccttgcccag aaagtcaata ggccttacct tcgcacaccc  
840  
cgccacaaga tcatacaagc agcatgcctt gtacagcaga agaggcaaga attcctggca  
900  
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960  
ggtggaacat gggattggga atatttagga ttgcatcac cagaggaata tctggaattt  
1020  
cagtatcgga ggaggcacag acaacgtcgt cgaggagatg ttcacagtct actcagtaat  
1080  
cctccagacc ctgatgagcc aagtgaagc actttagata ttccagaagg cggcagcagc  
1140  
agccgcaggc ctggcacatc cgtggtaagt tctgcattca tgagtgtgct gcacagctct  
1200  
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1260  
agttccttgg atgaagacga tcccaatata cttcttgcaa tacagttatc actgcaagag  
1320  
tctgggctgg ccctcgatga agaaactaga gacttcccta gtaatgaagc atccttaggt  
1380  
gcatagggca cttctttacc ttccaggctg gactctgtcc ccagaaatag agatagccct  
1440  
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gcagagaatg acccattttc aactgacacc ctgagctcac accctctcag tgaggcaaga  
1560  
agtgtatttc gtccctcacc tagtgatcct gactcagctg gccaggagccc caacatcaat  
1620  
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1680  
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1740  
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1800  
gccagtgtca gtgaaggtag aggaaccagc atagaagaaa atccttttga agaaaatatt  
1860  
ctggcggggg aagcagcatc tcaagctggt gacagtggta acgaggcagc caacagagga  
1920  
gatggttcag atgtttcaag tcaaacacct caaacctcaa gtgactggct tgaacaagta  
1980  
catttagtgt gaactgcaca catctgggct ctaaatgaat tacaggtaca gatggtatgc  
2040  
taggtggagt atgcttgata gagactttga ttacttaat tccaactcag tgataaacca  
2100  
ctgacattag ggttgaatac agagaagttc ctttgaatgg tagcttcatt tttattttta  
2160

accttacagg gaatttcctt tgtacttaat tgaatagctt ttcccccttt tgctgacaaa  
2220  
aagaagagca agagaagag aaacaaaaa gaaataaata agttgtattc cacactctaa  
2280  
gaaaaatgcag tctctctattt agcctaggct tgacaatact taaattgaaac atttaaacat  
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aaggcttact ccctaactctt tgggtggctt tcccttaaaa aaaaaaaaa agttttcttc  
2400  
attctagaaa tttatttttg ataaatccga taacatatat gtcctcaatc tctttgtgct  
2460  
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2640  
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2700  
tggtagcaat gatattccag aattaaatgg gtttttgggt ccatggagac tgcatttata  
2760  
taaatgtagc ctgtagetta agttaactaa acctaagtct gctgttaaaa acagtttatt  
2820  
ttaatattaa aatacagttg attagcaaca gcggtgctgt attttaagag acactttatt  
2880  
ggaagtgcga tcatagttat ttgttttcac aattttacag tgcattctaa ttactgatgg  
2940  
gtgcaattac ttttaaatcgt gttttataaa atagaaaaa agtggagttt tcatgagtta  
3000  
tagtaaatcc cagcattatt aagaaattca ataaacatc ctgcgcaaca tgttaccggtg  
3060  
cctttgccta acctaaatgg atagttgcc gttaaataag tgagtaattc aaatttcaat  
3120  
gtctcttctg aagtaactat gctatgaatt gcaaaagacct ccataaaacc acccatggcc  
3180  
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3240  
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3300  
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3360  
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3420  
gctgttttac ttaaatatta tcaaaactag cataacataa gcaaaataga taagtacaac  
3480  
actccattta gtgttttgcc agattgttac cagaagtcta cagataccaa actttcagtt  
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&lt;211&gt; 663

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5298

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&lt;211&gt; 368

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5299

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&lt;210&gt; 5302

&lt;211&gt; 1339

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5302

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Phe Gly Asn Arg Lys Gln Ile Ser Ala Ile Ala Thr Gln Gly Arg Tyr				
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Glu Ile Thr Phe Gly Gly Ile Pro Phe Ser Gly Lys Pro Ser Ser Ser				
	325	330		335
Ser Arg Lys Asn Phe Lys Gly Cys Met Glu Ser Ile Asn Tyr Asn Gly				
	340	345		350
Val Asn Ile Thr Asp Leu Ala Arg Arg Lys Lys Leu Glu Pro Ser Asn				
	355	360		365
Val Gly Asn Leu Ser Phe Ser Cys Val Glu Pro Tyr Thr Val Pro Val				
	370	375		380
Phe Phe Asn Ala Thr Ser Tyr Leu Glu Val Pro Gly Arg Leu Asn Gln				
385	390	395		400
Asp Leu Phe Ser Val Ser Phe Gln Phe Arg Thr Trp Asn Pro Asn Gly				
	405	410		415
Leu Leu Val Phe Ser His Phe Ala Asp Asn Leu Gly Asn Val Glu Ile				
	420	425		430
Asp Leu Thr Glu Ser Lys Val Gly Val His Ile Asn Ile Thr Gln Thr				
	435	440		445
Lys Met Ser Gln Ile Asp Ile Ser Ser Gly Ser Gly Leu Asn Asp Gly				
	450	455		460
Gln Trp His Glu Val Arg Phe Leu Ala Lys Glu Asn Phe Ala Ile Leu				
465	470	475		480
Thr Ile Asp Gly Asp Glu Ala Ser Ala Val Arg Thr Asn Ser Pro Leu				

485										490					495				
Gln	Val	Lys	Thr	Gly	Glu	Lys	Tyr	Phe	Phe	Gly	Gly	Phe	Leu	Asn	Gln				
			500					505					510						
Met	Asn	Asn	Ser	Ser	His	Ser	Val	Leu	Gln	Pro	Ser	Phe	Gln	Gly	Cys				
		515					520					525							
Met	Gln	Leu	Ile	Gln	Val	Asp	Asp	Gln	Leu	Val	Asn	Leu	Tyr	Glu	Val				
		530				535					540								
Ala	Gln	Arg	Lys	Pro	Gly	Ser	Phe	Ala	Asn	Val	Ser	Ile	Asp	Met	Cys				
545					550					555					560				
Ala	Ile	Ile	Asp	Arg	Cys	Val	Pro	Asn	His	Cys	Glu	His	Gly	Gly	Lys				
			565						570					575					
Cys	Ser	Gln	Thr	Trp	Asp	Ser	Phe	Lys	Cys	Thr	Cys	Asp	Glu	Thr	Gly				
			580					585					590						
Tyr	Ser	Gly	Ala	Thr	Cys	His	Asn	Ser	Ile	Tyr	Glu	Pro	Ser	Cys	Glu				
		595					600					605							
Ala	Tyr	Lys	His	Leu	Gly	Gln	Thr	Ser	Asn	Tyr	Tyr	Trp	Ile	Asp	Pro				
		610			615						620								
Asp	Gly	Ser	Gly	Pro	Leu	Gly	Pro	Leu	Lys	Val	Tyr	Cys	Asn	Met	Thr				
625					630					635					640				
Glu	Asp	Lys	Val	Trp	Thr	Ile	Val	Ser	His	Asp	Leu	Gln	Met	Gln	Thr				
			645						650					655					
Pro	Val	Val	Gly	Tyr	Asn	Pro	Glu	Lys	Tyr	Ser	Val	Thr	Gln	Leu	Val				
			660					665					670						
Tyr	Ser	Ala	Ser	Met	Asp	Gln	Ile	Ser	Ala	Ile	Thr	Asp	Ser	Ala	Glu				
		675					680					685							
Tyr	Cys	Glu	Gln	Tyr	Val	Ser	Tyr	Phe	Cys	Lys	Met	Ser	Arg	Leu	Leu				
		690				695					700								
Asn	Thr	Pro	Asp	Gly	Ser	Pro	Tyr	Thr	Trp	Trp	Val	Gly	Lys	Ala	Asn				
705					710					715					720				
Glu	Lys	His	Tyr	Tyr	Trp	Gly	Gly	Ser	Gly	Pro	Gly	Ile	Gln	Lys	Cys				
			725						730					735					
Ala	Cys	Gly	Ile	Glu	Arg	Asn	Cys	Thr	Asp	Pro	Lys	Tyr	Tyr	Cys	Asn				
			740					745					750						
Cys	Asp	Ala	Asp	Tyr	Lys	Gln	Trp	Arg	Lys	Asp	Ala	Gly	Phe	Leu	Ser				
		755					760					765							
Tyr	Lys	Asp	His	Leu	Pro	Val	Ser	Gln	Val	Val	Val	Gly	Asp	Thr	Asp				
		770				775					780								
Arg	Gln	Gly	Ser	Glu	Ala	Lys	Leu	Ser	Val	Gly	Pro	Leu	Arg	Cys	Gln				
785					790					795					800				
Gly	Asp	Arg	Asn	Tyr	Trp	Asn	Ala	Ala	Ser	Phe	Pro	Asn	Pro	Ser	Ser				
			805						810					815					
Tyr	Leu	His	Phe	Ser	Thr	Phe</													

	915						920						925					
Gln	Leu	Phe	Val	Gly	Gly	Ala	Gly	Gly	Gln	Gln	Gly	Phe	Leu	Gly	Cys			
	930					935					940							
Ile	Arg	Ser	Leu	Arg	Met	Asn	Gly	Val	Thr	Leu	Asp	Leu	Glu	Glu	Arg			
945				950						955					960			
Ala	Lys	Val	Thr	Ser	Gly	Phe	Ile	Ser	Gly	Cys	Ser	Gly	His	Cys	Thr			
				965					970					975				
Ser	Tyr	Gly	Thr	Asn	Cys	Glu	Asn	Gly	Gly	Lys	Cys	Leu	Glu	Arg	Tyr			
			980					985					990					
His	Gly	Tyr	Ser	Cys	Asp	Cys	Ser	Asn	Thr	Ala	Tyr	Asp	Gly	Thr	Phe			
	995							1000				1005						
Cys	Asn	Lys	Asp	Val	Gly	Ala	Phe	Phe	Glu	Glu	Gly	Met	Trp	Leu	Arg			
	1010					1015					1020							
Tyr	Asn	Phe	Gln	Ala	Pro	Ala	Thr	Asn	Ala	Arg	Asp	Ser	Ser	Ser	Arg			
1025				1030					1035						1040			
Val	Asp	Asn	Ala	Pro	Asp	Gln	Gln	Asn	Ser	His	Pro	Asp	Leu	Ala	Gln			
			1045						1050					1055				
Glu	Glu	Ile	Arg	Phe	Ser	Phe	Ser	Thr	Thr	Lys	Ala	Pro	Cys	Ile	Leu			
			1060					1065					1070					
Leu	Tyr	Ile	Ser	Ser	Phe	Thr	Thr	Asp	Phe	Leu	Ala	Val	Leu	Val	Lys			
	1075							1080				1085						
Pro	Thr	Gly	Ser	Leu	Gln	Ile	Arg	Tyr	Asn	Leu	Gly	Gly	Thr	Arg	Glu			
	1090					1095					1100							
Pro	Tyr	Asn	Ile	Asp	Val	Asp	His	Arg	Asn	Met	Ala	Asn	Gly	Gln	Pro			
1105				1110						1115					1120			
His	Ser	Val	Asn	Ile	Thr	Arg	His	Glu	Lys	Thr	Ile	Phe	Leu	Lys	Leu			
			1125					1130					1135					
Asp	His	Tyr	Pro	Ser	Val	Ser	Tyr	His	Leu	Pro	Ser	Ser	Ser	Asp	Thr			
			1140					1145					1150					
Leu	Phe	Asn	Ser	Pro	Lys	Ser	Leu	Phe	Leu	Gly	Lys	Val	Ile	Glu	Thr			
	1155						1160					1165						
Gly	Lys	Ile	Asp	Gln	Glu	Ile	His	Lys	Tyr	Asn	Thr	Pro	Gly	Phe	Thr			
	1170					1175					1180							
Gly	Cys	Leu	Ser	Arg	Val	Gln	Phe	Asn	Gln	Ile	Ala	Pro	Leu	Lys	Ala			
1185				1190					1195						1200			
Ala	Leu	Arg	Gln	Thr	Asn	Ala	Ser	Ala	His	Val	His	Ile	Gln	Gly	Glu			
			1205					1210					1215					
Leu	Val	Glu	Ser	Asn	Cys	Gly	Ala	Ser	Pro	Leu	Thr	Leu	Ser	Pro	Met			
			1220					1225					1230					
Ser	Ser	Ala	Thr	Asp	Pro	Trp	His	Leu	Asp	His	Leu	Asp	Ser	Ala	Ser			
	1235						1240					1245						
Ala	Asp	Phe	Pro	Tyr	Asn	Pro	Gly	Gln	Gly	Gln	Ala	Ile	Arg	Asn	Gly			
	1250					1255					1260							
Val	Asn	Arg	Asn	Ser	Ala	Ile	Ile	Gly	Gly	Val	Ile	Ala	Val	Val	Ile			
1265</																		

&lt;210&gt; 5303

&lt;211&gt; 334

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5303

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 acccagcgga ataccgaaaga agttcaacgg caagccgggg cgcccgggctg ggctcacgag  
 120  
 atggctgcat gaaggagtca cagcggcgag gctactgctc acgccacctg tccatgcgaa  
 180  
 ccaaagagat ggaaggcctg gcagacagtg ggctggggcg ggcgggcccg ccgcgggccc  
 240  
 tggcagcccc tgagggcagc acggagtttg actgggggtga tgagacgtcg agggacagtg  
 300  
 gaggccagca gtgtggcgac tcgtggagac tcac  
 334

&lt;210&gt; 5304

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5304

Met	Trp	Ser	Ala	His	Pro	Ala	Glu	Tyr	Glu	Arg	Ser	Ser	Thr	Ala	Ser
1				5					10				15		
Arg	Gly	Ala	Arg	Leu	Gly	Ser	Arg	Asp	Gly	Cys	Met	Lys	Glu	Ser	Gln
			20				25					30			
Arg	Arg	Gly	Tyr	Cys	Ser	Arg	His	Leu	Ser	Met	Arg	Thr	Lys	Glu	Met
			35			40					45				
Glu	Gly	Leu	Ala	Asp	Ser	Gly	Pro	Gly	Gly	Ala	Gly	Arg	Pro	Ala	Ala
		50				55				60					
Val	Ala	Ala	Arg	Glu	Gly	Ser	Thr	Glu	Phe	Asp	Trp	Gly	Asp	Glu	Thr
65				70					75				80		
Ser	Arg	Asp	Ser	Gly	Gly	Gln	Gln	Cys	Gly	Asp	Ser	Trp	Arg	Leu	
			85					90					95		

&lt;210&gt; 5305

&lt;211&gt; 582

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5305

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 60  
 cctctgtgcc ccaggatgtc ttgtggtggc ggtcgggcct tctgcccccc agggcacccc  
 120  
 ctgtttagg cactggctag ggaggggag gcctccttcc tgcctctga gacactcttg  
 180  
 ggagatgcat tttccgtctg gctcacaggg ggagggtag gctttgtacc ccagcccctg  
 240  
 ccagggccac tgtgaggggt ggtgctggct gagcccctgg ggagaaagga gtggggcagg  
 300

cggggtcttt gttctcggt cccacagcag agccaggtag gggggggcct gccaggacta  
 360  
 gacagaagt gggcggcctg aacctgctt ccagccatgg ccagggggcca cggaacccgg  
 420  
 caggggtgtc tgaagccgcc ctgtcagctg gccggtccaa gcctgtggct ggagctgggt  
 480  
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 540  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa  
 582

<210> 5306

<211> 62

<212> PRT

<213> Homo sapiens

<400> 5306

Met	Ala	Arg	Gly	His	Gly	Thr	Arg	Gln	Gly	Cys	Leu	Lys	Pro	Pro	Cys
1				5					10					15	
Gln	Leu	Ala	Gly	Pro	Ser	Leu	Trp	Leu	Glu	Leu	Val	Cys	Val	Tyr	Leu
			20					25					30		
Ile	Lys	Ser	His	Arg	Cys	Leu	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
			35				40					45			
Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
	50					55						60			

<210> 5307

<211> 1551

<212> DNA

<213> Homo sapiens

<400> 5307

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 ataaaactga gtgaaggctg ctatgacctg tgttcaactt ggttacaggg aggtgcaaac  
 120  
 cattctgtct cccagccttt cttctctctt tgtgtgtctc cagcacttcc ttcttttcta  
 180  
 acatggcctg gagagagtct ctctctcctt gtctctgtct cttaataata gtttttaacg  
 240  
 tggacatctc ttccttggtg cagtgggttt taaatactga gaagaaccaa gtcagggttt  
 300  
 ttaaagcaga ctaaaagcat gaaattgctt tcagaagaat gtatatcatc gggaaaagt  
 360  
 cgggggcaga gtgggggaat caggctttat tcaaaagaaa cagttgaaaa catgggactt  
 420  
 tttctacca atgccattt cagactcct ctgagactaa ttgggaaacg gggaaattct  
 480  
 tggaaatttt tttttaagaa acttttttgt gtttttttta atttttaggtc acttattagt  
 540  
 gaaacctcat ttttagatctg acattggtag atagatggat ttaggcaaat atgatgcgtt  
 600  
 tgtgggggat ccagctgggt gacgttagaa cctcccttct gcagactgtt gcctgtcatc  
 660

taagcgaatt ggaatgctg agcttccata agtcagctga gttttaagg taaacgttat  
 720  
 ggctgaagta gtaaagcacc tgaccacaaa acctcttgta aaaacagccc tgatagtgta  
 780  
 tttccagggc tccacaaagt tgcttatggg aatcctgagc tgcttttcac catctcaaga  
 840  
 agcctaagaa gttatatatt taatcaggta gacaaaacag ttcaaagcat aaggtccatg  
 900  
 gtgggtgaaa atggatgcaa gtgattctaa gtttggtgat ttgtggatag cagagggatc  
 960  
 gggacctctt ggaggaaccc tgggtaccaa gctcccaggc ccttcctcta tcatggatgc  
 1020  
 tgggtgactt tgggaagtea ccacctcttc ccaagcctgt ttcccatatc acagatgtgg  
 1080  
 ggccatggcc tcgatgatgg tctccacagg tctttccacc tctgtgagtc caagtcagggt  
 1140  
 caatcagcaa ggaccatct ctgccctggg tcagctcctc agaaccaacc cccagcatct  
 1200  
 ctaaaagcaa agcctcacct caagggtgc tcagaagaga gcaccttcag catgagtgtg  
 1260  
 tgctggaaga tctaataagc tgtgtttcct ggggaagtgt gctttactta gccctgtgga  
 1320  
 caacttctct atgcatctgt gtgagcagat gatcattgta ttacctttta tcggtagtaa  
 1380  
 gcttggaata ataatttaag aatacaatgg agaaatgtaa ataagtatct atgtaaattt  
 1440  
 gtttaaaata aactgaatgt atttaagtgt ccatttatat gttcttttat gtaacatgta  
 1500  
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 1551

<210> 5308

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5308

Met	Leu	Gly	Val	Gly	Ser	Glu	Glu	Leu	Thr	Gln	Gly	Arg	Asp	Gly	Ser
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Leu	Leu	Ile	Asp	Leu	Thr	Trp	Thr	His	Arg	Gly	Gly	Lys	Thr	Cys	Gly
			20					25					30		
Asp	His	His	Arg	Gly	His	Gly	Pro	Thr	Ser	Val	Ile	Trp	Glu	Thr	Gly
	35						40					45			
Leu	Gly	Arg	Gly	Gly	Asp	Phe	Pro	Lys	Ser	Pro	Ser	Ile	His	Asp	Arg
	50				55					60					
Gly	Arg	Ala	Trp	Glu	Leu	Gly	Thr	Gln	Gly	Ser	Ser	Lys	Arg	Ser	Arg
65				70					75				80		
Ser	Leu	Cys	Tyr	Pro	Gln	Ile	His	Lys	Leu	Arg	Ile	Thr	Cys	Ile	His
			85					90					95		
Phe	Pro	Pro	Pro	Trp	Thr	Leu	Cys	Phe	Glu	Leu	Phe	Cys	Leu	Pro	Asp
			100					105					110		

<210> 5309

<211> 2078

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5309

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aacgccggcc actctaggat cctcactcgg ggagaggagg catagctcgc ggggtcaccc  
120  
tccaccgcga acgtactccg ggtcggcctt cgcctcgggg cctgagaggg gcggcgccgg  
180  
ggtcaggggg cgcacaaaga atgaaccagc agtgggaagag aaaatactgt aagctggctg  
240  
actgctggtg aagaaaatgc ttattttttg tggcaggcat ctgtgggagc tgtaatagaa  
300  
atgatggctg gctgtggatga aattgatcat tcaataaaca tgcttctac aaacaggaaa  
360  
gcgaacgagt cctgttctaa tactgcacct tctttaaccg tccctgaatg tgccatttgt  
420  
ctgcaaacat gtgttcaccc agtcagctcg cctgtgaagc acgttttctg ctatctatgt  
480  
gtaaaaggag cttcatggct tggaaagcgg tgtgtctctt gtcacaaga aatccccgag  
540  
gatttccctg acaagccaac cttgtgttca ccagaagaac tcaaggcagc aagtagagga  
600  
aatggtgaat atgcatggta ttatgaagga agaaatgggt ggtggcagta cgatgagcgc  
660  
actagtagag agctggaaga tgctttttcc aaaggtaaaa agaactga aatgttaatt  
720  
gctggctttc tgtatgtcgc tgatcttgaa aacatgggtc aatataggag aaatgaacat  
780  
ggacgtcgca ggaagattaa gcgagatata atagatatac caaagaaggg agtagctgga  
840  
cttaggctag actgtgatgc taataccgta aacctagcaa gagagagctc tgcgtacgga  
900  
gcggacagtg tatcagcaca gagtggagct tctgttcagc ccctagtgtc ttctgtaagg  
960  
cccctaacat cagtagatgg tcagttaaca agccctgcaa caccatcccc tgatgcaagc  
1020  
acttctcttg aagactcttt tgctcattta caactcagtg gagacaacac agctgaaagg  
1080  
agtcataggg gagaaggaga agaagatcat gaatcacat cttcaggcag ggtaccagca  
1140  
ccagacacct ccattgaaga aactgaatca gatgccagta gtgatagtga ggaagtatct  
1200  
gcagttgttg cacagcactc cttgacccaa cagagacttt tggtttctaa tgcaaacaccg  
1260  
acagtaccgg atcgatcaga tcgatcggga actgatcgat cagtacgagg ggggtggaaca  
1320  
gtgagtgtca gtgtcagatc tagaaggcct gatggacagt gcacagtaac tgaagttaa  
1380  
ataaaaatgt cttcagctcc atgctcaagg ttgaaaggt tacctgtaaa tttctgccca  
1440  
cataacatta tactcatccc tagtagtgca ttttgggagt tggggtggga aggggtatgg  
1500

gaaggataga ctcataatta aaatgtctaa catgtctctg ttgagaaatt tatttaattgt  
 1560  
 aagggaacttg ggtgttaata gttgagagct gtttagtaat aaccagttt tcttgaggtc  
 1620  
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 1680  
 ctgtgcatta atggctctca tctgactcct gcattgtgtc ttatttttct gcattgattg  
 1740  
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 1800  
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 1860  
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 1920  
 ttgtaacaca cttcatggtg ttcccatagg ctttgctgtc tagtcttata gtttgagggt  
 1980  
 tttttgggtc gcatttttct ttttgattac aaaatttata atttaataaa tactagaggt  
 2040  
 tatcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaa  
 2078

<210> 5310

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5310

Met	Met	Ala	Gly	Cys	Gly	Glu	Ile	Asp	His	Ser	Ile	Asn	Met	Leu	Pro
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Thr	Asn	Arg	Lys	Ala	Asn	Glu	Ser	Cys	Ser	Asn	Thr	Ala	Pro	Ser	Leu
			20					25					30		
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
			35				40					45			
Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
			50			55					60				
Ser	Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Cys	Arg	Gln	Glu	Ile	Pro	Glu
					70					75				80	
Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
				85					90					95	
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
			100					105					110		
Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
			115				120					125			
Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
			130			135					140				
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
					150					155				160	
Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Asp	Ile	Pro	Lys	Lys	
				165				170					175		
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
			180					185					190		
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
			195			200					205				
Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

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      210              215              220
Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser
225              230              235              240
Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn
      245              250              255
Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser
      260              265              270
Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr
      275              280              285
Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala
      290              295              300
Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln
305              310              315              320
Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala
      325              330              335
Gly Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly
      340              345              350
Gln Cys Thr Val Thr Glu Val
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<210> 5311
<211> 572
<212> DNA
<213> Homo sapiens

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<400> 5311
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120
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180
gagaagttgc agatgacgtc cagcgagcgc aggaagatca tgtgctcagt gacattccac
240
gtcattgcc a tcacatgtgt ggtctggtcc ttgtatgtgc tcattgaccg tcctgctgag
300
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<210> 5312
<211> 190
<212> PRT
<213> Homo sapiens

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<400> 5312
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Cys Thr Gly Ser Leu His Phe Val His Gln Ala Tyr Leu Gln Gln Trp
      20             25             30
Ile Lys Ser Ser Asp Thr Arg Cys Cys Glu Leu Cys Lys Tyr Glu Phe
      35             40             45
Ile Met Glu Thr Lys Leu Lys Pro Leu Arg Lys Trp Glu Lys Leu Gln
      50             55             60
Met Thr Ser Ser Glu Arg Arg Lys Ile Met Cys Ser Val Thr Phe His
      65             70             75             80
Val Ile Ala Ile Thr Cys Val Val Trp Ser Leu Tyr Val Leu Ile Asp
      85             90             95
Arg Pro Ala Glu Glu Ile Lys Gln Gly Gln Ala Thr Gly Ile Leu Glu
      100            105            110
Trp Pro Phe Trp Thr Lys Leu Val Val Ala Ile Gly Phe Thr Arg
      115            120            125
Gly Leu Leu Phe Met Tyr Val Gln Cys Lys Val Tyr Val Gln Leu Trp
      130            135            140
Lys Arg Leu Lys Ala Tyr Asn Arg Val Ile Tyr Val Gln Asn Cys Pro
      145            150            155            160
Glu Thr Ser Lys Lys Asn Ile Phe Glu Lys Ser Pro Leu Thr Glu Pro
      165            170            175
Asn Phe Glu Asn Lys His Gly Tyr Gly Ile Cys His Ser Asp
      180            185            190

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&lt;210&gt; 5313

&lt;211&gt; 322

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5313

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acacacatac atgtccacac ac
322

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&lt;210&gt; 5314

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5314

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Arg Gly Arg Arg Glu Glu Gly Asp Lys Arg Ser Val Ala Pro Gln
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Thr Arg Val Leu Lys Gly Val Met Arg Val Gly Ile Leu Ala Lys Gly
      20             25             30
Leu Leu Leu Arg Gly Asp Arg Asn Val Arg Leu Ala Leu Leu Cys Ser

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	35					40						45			
Glu	Lys	Pro	Thr	His	Ser	Leu	Leu	Arg	Arg	Ile	Ala	Gln	Gln	Leu	Pro
	50					55					60				
Arg	Gln	His	Arg	Gln	Phe	His	Val	Val	Cys	Asp	Trp	Pro	Val	His	Met
65					70					75				80	
Glu	Val	Phe	Ser	Asp	Leu	Ala	Leu	Asp	Thr	Pro	Ala	Asn	Arg	Thr	His
				85				90					95		
Thr	Tyr	Ser	Leu	Thr	His	Ile	His	Val	His	Thr					
			100					105							

&lt;210&gt; 5315

&lt;211&gt; 2298

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5315

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&lt;210&gt; 5316

&lt;211&gt; 544

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5316

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 Gln Lys Leu Asn Cys Arg Gln Ile Pro Lys Leu Leu Arg Gln Leu Gln  
 20 25 30  
 Glu Phe Thr Asp Leu Gly His Arg Leu Asp Cys Leu Asp Leu Lys Gly  
 35 40 45  
 Glu Lys Leu Asp Tyr Lys Thr Cys Glu Ala Leu Glu Glu Val Phe Lys

50	55	60
Arg Leu Gln Phe Lys Val Val Asp Leu Glu Gln Thr Asn Leu Asp Glu		
65	70	75
Asp Gly Ala Ser Ala Leu Phe Asp Met Ile Glu Tyr Tyr Glu Ser Ala		80
	85	90
Thr His Leu Asn Ile Ser Phe Asn Lys His Ile Gly Thr Arg Gly Trp		95
	100	105
Gln Ala Ala Ala His Met Met Arg Lys Thr Ser Cys Leu Gln Tyr Leu		110
	115	120
Asp Ala Arg Asn Thr Pro Leu Leu Asp His Ser Ala Pro Phe Val Ala		125
	130	135
Arg Ala Leu Arg Ile Arg Ser Ser Leu Ala Val Leu His Leu Glu Asn		140
	145	150
Ala Ser Leu Ser Gly Arg Pro Leu Met Leu Leu Ala Thr Ala Leu Lys		155
	165	170
Met Asn Met Asn Leu Arg Glu Leu Tyr Leu Ala Asp Asn Lys Leu Asn		175
	180	185
Gly Leu Gln Asp Ser Ala Gln Leu Gly Asn Leu Leu Lys Phe Asn Cys		190
	195	200
Ser Leu Gln Ile Leu Asp Leu Arg Asn Asn His Val Leu Asp Ser Gly		205
	210	215
Leu Ala Tyr Ile Cys Glu Gly Leu Lys Glu Gln Arg Lys Gly Leu Val		220
	225	230
Thr Leu Val Leu Trp Asn Asn Gln Leu Thr His Thr Gly Met Ala Phe		235
	245	250
Leu Gly Met Thr Leu Ser His Thr Gln Ser Leu Glu Thr Leu Asn Leu		255
	260	265
Gly His Asn Pro Ile Gly Asn Glu Gly Val Arg His Leu Lys Asn Gly		270
	275	280
Leu Ile Ser Asn Arg Ser Val Leu Arg Leu Gly Leu Ala Ser Thr Lys		285
	290	295
Leu Thr Cys Glu Gly Ala Val Ala Val Ala Glu Phe Ile Ala Glu Ser		300
	305	310
Pro Arg Leu Leu Arg Leu Asp Leu Arg Glu Asn Glu Ile Lys Thr Gly		315
	325	330
Gly Leu Met Ala Leu Ser Leu Ala Leu Lys Val Asn His Ser Leu Leu		335
	340	345
Arg Leu Asp Leu Asp Arg Glu Pro Lys Lys Glu Ala Val Lys Ser Phe		350
	355	360
Ile Glu Thr Gln Lys Ala Leu Leu Ala Glu Ile Gln Asn Gly Cys Lys		365
	370	375
Arg Asn Leu Val Leu Ala Arg Glu Arg Glu Glu Lys Glu Gln Pro Pro		380
	385	390
Gln Leu Ser Ala Ser Met Pro Glu Thr Thr Ala Thr Glu Pro Gln Pro		395
	405	410
Asp Asp Glu Pro Ala Ala Gly Val Gln Asn Gly Ala Pro Ser Pro Ala		415
	420	425
Pro Ser Pro Asp Ser Asp Ser Asp Ser Asp Ser Asp Gly Glu Glu Glu		430
	435	440
Glu Glu Glu Glu Gly Glu Arg Asp Glu Thr Pro Ser Gly Ala Ile Asp		445
	450	455
Thr Arg Asp Thr Gly Ser Ser Glu Pro Gln Pro Pro Pro Glu Pro Pro		460
	465	470
Arg Ser Gly Pro Leu Pro Asn Gly Leu Lys Pro Glu Phe Ala Leu		475
	480	

485										490					495				
Ala	Leu	Pro	Pro	Glu	Pro	Pro	Pro	Gly	Pro	Glu	Val	Lys	Gly	Gly	Ser				
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Cys	Gly	Leu	Glu	His	Glu	Leu	Ser	Cys	Ser	Lys	Asn	Glu	Lys	Glu	Leu				
515										520					525				
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<211> 889
<212> DNA
<213> Homo sapiens
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300					
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360					
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<210> 5318
<211> 132
<212> PRT
<213> Homo sapiens
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<400> 5318  
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<211> 96

<212> PRT

<213> Homo sapiens

<400> 5320

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			20					25					30		
Arg	Ser	Leu	Ala	Leu	Xaa	Thr	Gln	Ala	Gly	Val	Leu	Trp	Leu	Asp	Leu
			35				40					45			
Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Arg	Phe	Lys	Gln	Phe	Ser	Cys	Pro
			50			55				60					
Ser	Leu	Pro	Ser	Ser	Trp	Asp	Tyr	Arg	Cys	Met	Pro	Pro	Trp	Leu	Ala
					70					75				80	
Asn	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Gly	Val	Ser	Pro	Tyr	Trp	Ser	Gly
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<210> 5321

<211> 6324

<212> DNA

<213> Homo sapiens

<400> 5321

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&lt;210&gt; 5322

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5322

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Glu	Lys	Ile	Lys	Gln	Ala	Lys	Glu	Ala	Val	Lys	Glu	Asn	Leu	Lys	Lys
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Phe	Ser	Asp	Ser	Val	Lys	Ser	Thr	Phe	Arg	His	Phe	Lys	Asp	Thr	Thr
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Lys	Asn	Ile	Phe	Asp	Glu	Lys	Gly	Asn	Lys	Arg	Phe	Gly	Ala	Thr	Lys
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Glu	Ala	Ala	Glu	Lys	Pro	Arg	Thr	Val	Phe	Ser	Asp	Tyr	Leu	His	Pro

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 Met Arg Thr Leu Gly Thr Thr Ser Thr Ser Pro Pro Tyr Ser Ala His  
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 Gly Arg Arg Pro Tyr Lys Trp Arg Gly Val Gly Arg Lys Ala Trp Gln  
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 Leu Trp Thr Ala Pro Arg Ser Leu Leu Leu Ser Val Gly Leu Ala Ser  
 65                      70                      75                      80  
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 Glu Arg Val Leu Leu Leu Glu Ala Gly Pro Lys Asp Val Arg Ala Gly  
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 Ser Lys Arg Leu Ser Trp Lys Ile His Met Pro Ala Ala Leu Val Ala  
 85 90 95  
 Asn Leu Cys Asp Asp Arg Tyr Asn Trp Cys Tyr His Thr Glu Val Gln



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&lt;211&gt; 694

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5328

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Gly Ser Ser Ser Pro Val Asn Thr Phe Gln Thr Val Leu Ile Thr		95
	100	105
Asp Gly Lys Leu Ser Phe Thr Ile Phe Asn Tyr Glu Ser Ile Val Trp		110
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Pro Cys Asp Ser Asp Pro Cys Phe Asn Gly Gly Ser Cys Asp Ala His		455
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<210> 5330

<211> 308

<212> PRT

<213> Homo sapiens

<400> 5330

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				Glu	Leu
				Ser	Lys
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Glu	Met	Val	Ser	Leu	Leu
		Pro	Thr	Lys	Met
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&lt;210&gt; 5331

&lt;211&gt; 1069

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5331

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&lt;210&gt; 5332

&lt;211&gt; 61

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5332

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Met Ile Thr Asp Ser Gly Lys Phe Ser Gly Ser Ser Pro Ala Pro Pro
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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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 65 70 75 80  
 Glu Ile Arg Gly Ser Arg Ala Arg Ala Leu Pro Asp Arg Ala Leu Val  
 85 90 95  
 Asn Cys Gln Tyr Ser Ser Ala Thr Phe Ser Thr Gly Glu Arg Lys Arg  
 100 105 110  
 Arg Pro His Gly Asp Arg Lys Ser Cys Glu Met Gly Leu Gln Leu Arg  
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 Gln Thr Phe Glu Ala Ala Ile Leu Thr Gln Leu His Pro Arg Ser Gln  
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 145 150 155 160  
 Ala Cys Val Asn Ala Ala Thr Leu Ala Val Leu Asp Ala Gly Ile Pro  
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 Met Arg Asp Phe Val Cys Ala Cys Ser Ala Gly Phe Val Asp Gly Thr  
 180 185 190  
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 195 200 205  
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 210 215 220  
 Met Asp Ala Arg Leu His Glu Asp His Leu Glu Arg Val Leu Glu Ala  
 225 230 235 240  
 Ala Ala Gln Ala Ala Arg Asp Val His Thr Leu Leu Asp Arg Val Val  
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 Arg Gln His Val Arg Glu Ala Ser Ile Leu Leu Gly Asp  
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&lt;210&gt; 5335

&lt;211&gt; 4282

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5335

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<211> 766

<212> PRT

<213> Homo sapiens

<400> 5336

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	660		665		670
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	675		680		685
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Leu Ile Lys Glu Gly Gly Met Pro Leu Leu Arg Asp Ile Ile Lys Met					
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Ala Thr Ala Arg Gln Glu Thr Lys Glu Met Ala Arg Lys Val Ile Glu					
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&lt;210&gt; 5337

&lt;211&gt; 2742

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5337

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<211> 139

<212> PRT

<213> Homo sapiens

<400> 5338

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			20					25					30		
Asn	Ser	Gln	Met	Lys	Ile	Val	His	Lys	Lys	Lys	Glu	Arg	Gly	His	Gly
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Tyr	Asn	Ser	Ser	Ala	Ala	Ala	Trp	Gln	Ala	Met	Gln	Asn	Gly	Gly	Lys
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Pro	Arg	Leu	Leu	Phe	Lys	Ser	Gln	Ala	Asn	Gln	Asn	Tyr	Ala	Gly	Ala
				85					90					95	
Lys	Phe	Ser	Glu	Pro	Pro	Ser	Pro	Ser	Val	Leu	Pro	Lys	Pro	Pro	Ser
			100					105					110		
His	Trp	Val	Pro	Val	Ser	Phe	Asn	Pro	Ser	Asp	Lys	Glu	Ile	Met	Thr
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<210> 5339

<211> 847

<212> DNA

<213> Homo sapiens

<400> 5339

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<210> 5340

<211> 217

<212> PRT

<213> Homo sapiens

<400> 5340

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			20				25						30		
Leu	Leu	Ser	Gly	Asp	Glu	Tyr	Asn	Gln	Asp	Phe	Asp	Ser	Thr	Asn	Phe
		35					40					45			
Glu	Glu	Ser	Gln	Asp	Glu	Asp	Asp	Ala	Leu	Asn	Glu	Ile	Val	Arg	Cys
		50				55					60				
Ile	Cys	Glu	Met	Asp	Glu	Glu	Asn	Gly	Phe	Met	Ile	Gln	Cys	Glu	Glu
65				70					75					80	
Cys	Leu	Cys	Trp	Gln	His	Ser	Val	Cys	Met	Gly	Leu	Leu	Glu	Glu	Ser
			85						90					95	
Ile	Pro	Glu	Gln	Tyr	Ile	Cys	Tyr	Ile	Cys	Arg	Asp	Pro	Pro	Gly	Gln
			100					105					110		
Arg	Trp	Ser	Ala	Lys	Tyr	Arg	Tyr	Asp	Lys	Glu	Trp	Leu	Asn	Asn	Gly
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Arg	Met	Cys	Gly	Leu	Ser	Phe	Phe	Lys	Glu	Asn	Tyr	Ser	His	Leu	Asn
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Ala	Lys	Lys	Ile	Val	Ser	Thr	His	His	Leu	Leu	Ala	Asp	Val	Tyr	Gly
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			165						170					175	
Asn	Lys	His	His	Pro	Asp	Leu	His	Leu	Trp	Ala	Cys	Ser	Gly	Lys	Arg
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Lys	Asp	Gln	Asp	Gln	Ile	Ile	Ala	Gly	Val	Glu	Lys	Lys	Ile	Ala	Gln
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&lt;210&gt; 5341

&lt;211&gt; 2455

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5341

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&lt;210&gt; 5342

&lt;211&gt; 690

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5342

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 Ser Leu Ala Ala Ala Leu Ala Leu Thr Leu Leu Pro Ala Arg Leu  
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 Pro Pro Gly Leu Arg Trp Leu Pro Ala Asp Val Ile Phe Leu Ala Lys  
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 Gly Ala Leu Gly Lys Met Ser Cys Leu Leu Arg Met Leu Ser Pro Phe  
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 Glu Leu Val Gln Phe Asp Met Glu Ala Ala Glu Pro Val Arg Asp Asn  
 465 470 475 480  
 Gln Gly Phe Cys Ile Pro Val Gly Leu Gly Glu Pro Gly Leu Leu Leu  
 485 490 495  
 Thr Lys Val Val Ser Gln Gln Pro Phe Val Gly Tyr Arg Gly Pro Arg  
 500 505 510  
 Glu Leu Ser Glu Arg Lys Leu Val Arg Asn Val Arg Gln Ser Gly Asp  
 515 520 525  
 Val Tyr Tyr Asn Thr Gly Asp Val Leu Ala Met Asp Arg Glu Gly Phe

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      530                      535                      540
Leu Tyr Phe Arg Asp Arg Leu Gly Asp Thr Phe Arg Trp Lys Gly Glu
545                      550                      555                      560
Asn Val Ser Thr His Glu Val Glu Gly Val Leu Ser Gln Val Asp Phe
      565                      570                      575
Leu Gln Gln Val Asn Val Tyr Gly Val Cys Val Pro Gly Cys Glu Gly
      580                      585                      590
Lys Val Gly Met Ala Ala Val Gln Leu Ala Pro Gly Gln Thr Phe Asp
      595                      600                      605
Gly Glu Lys Leu Tyr Gln His Val Arg Ala Trp Leu Pro Ala Tyr Ala
      610                      615                      620
Thr Pro His Phe Ile Arg Ile Gln Asp Ala Met Glu Val Thr Ser Thr
      625                      630                      635                      640
Phe Lys Leu Met Lys Thr Arg Leu Val Arg Glu Gly Phe Asn Val Gly
      645                      650                      655
Ile Val Val Asp Pro Leu Phe Val Leu Asp Asn Arg Ala Gln Ser Phe
      660                      665                      670
Arg Pro Leu Thr Ala Glu Met Tyr Gln Ala Val Cys Glu Gly Thr Trp
      675                      680                      685
Lys Leu
      690

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&lt;210&gt; 5343

&lt;211&gt; 752

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5343

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752

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<210> 5344  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

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 Glu Arg Ser Phe Phe Leu Lys Lys Arg Arg Ala Asp Phe Val Ala Gly  
 35 40 45  
 Ser Leu Ser Gly Arg Val Ile Val Ala Gly Gly Leu Gly Asn Gln Pro  
 50 55 60  
 Thr Val Leu Glu Thr Ala Glu Ala Phe His Pro Gly Lys Asn Lys Trp  
 65 70 75 80  
 Glu Ile Leu Pro Ala Met Pro Thr Pro Arg Cys Ala Cys Ser Ser Ile  
 85 90 95  
 Val Val Lys Asn Cys Leu Leu Ala Val Gly Gly Val Asn Gln Gly Leu  
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 Ser Asp Ala Val Glu Ala Leu Cys Val Ser Asp Ser  
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<210> 5345  
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 <212> DNA  
 <213> Homo sapiens

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 gactcttccc ctgccaagaa aactcgtaga tgccagagac aggagtcgaa aaagatgcct  
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 240  
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 actcaggatg aagaggaac aaagaaagag gaattcttta aatctccctt gaagccagag  
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 1860  
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 1912

&lt;210&gt; 5346

&lt;211&gt; 534

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5346

Met Pro Val Ala Gly Gly Lys Ala Asn Lys Asp Arg Thr Glu Asp Lys  
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 Gln Asp Gly Met Pro Gly Arg Ser Trp Ala Ser Lys Arg Val Ser Glu  
 20 25 30  
 Ser Val Lys Ala Leu Leu Leu Lys Gly Lys Ala Pro Val Asp Pro Glu  
 35 40 45  
 Cys Thr Ala Lys Val Gly Lys Ala His Val Tyr Cys Glu Gly Asn Asp

50	55	60
Val Tyr Asp Val Met Leu Asn Gln Thr Asn Leu Gln Phe Asn Asn Asn		
65	70	75
Lys Tyr Tyr Leu Ile Gln Leu Leu Glu Asp Asp Ala Gln Arg Asn Phe		80
	85	90
Ser Val Trp Met Arg Trp Gly Arg Val Gly Lys Met Gly Gln His Ser		95
	100	105
Leu Val Ala Cys Ser Gly Asn Leu Asn Lys Ala Lys Glu Ile Phe Gln		110
	115	120
Lys Lys Phe Leu Asp Lys Thr Lys Asn Asn Trp Glu Asp Arg Glu Lys		125
	130	135
Phe Glu Lys Val Pro Gly Lys Tyr Asp Met Leu Gln Met Asp Tyr Ala		140
145	150	155
Thr Asn Thr Gln Asp Glu Glu Glu Thr Lys Lys Glu Glu Ser Leu Lys		160
	165	170
Ser Pro Leu Lys Pro Glu Ser Gln Leu Asp Leu Arg Val Gln Glu Leu		175
	180	185
Ile Lys Leu Ile Cys Asn Val Gln Ala Met Glu Glu Met Met Met Glu		190
	195	200
Met Lys Tyr Asn Thr Lys Lys Ala Pro Leu Gly Lys Leu Thr Val Ala		205
	210	215
Gln Ile Lys Ala Gly Tyr Gln Ser Leu Lys Lys Ile Glu Asp Cys Ile		220
225	230	235
Arg Ala Gly Gln His Gly Arg Ala Leu Met Glu Ala Cys Asn Glu Phe		240
	245	250
Tyr Thr Arg Ile Pro His Asp Phe Gly Leu Arg Thr Pro Pro Leu Ile		255
	260	265
Arg Thr Gln Lys Glu Leu Ser Glu Lys Ile Gln Leu Leu Glu Ala Leu		270
	275	280
Gly Asp Ile Glu Ile Ala Ile Lys Leu Val Lys Thr Glu Leu Gln Ser		285
	290	295
Pro Glu His Pro Leu Asp Gln His Tyr Arg Asn Leu His Cys Ala Leu		300
305	310	315
Arg Pro Leu Asp His Glu Ser Tyr Glu Phe Lys Val Ile Ser Gln Tyr		320
	325	330
Leu Gln Ser Thr His Ala Pro Thr His Ser Asp Tyr Thr Met Thr Leu		335
	340	345
Leu Asp Leu Phe Glu Val Glu Lys Asp Gly Glu Lys Glu Ala Phe Arg		350
	355	360
Glu Asp Leu His Asn Arg Met Leu Leu Trp His Gly Ser Arg Met Ser		365
	370	375
Asn Trp Val Gly Ile Leu Ser His Gly Leu Arg Ile Ala Pro Pro Glu		380
385	390	395
Ala Pro Ile Thr Gly Tyr Met Phe Gly Lys Gly Ile Tyr Phe Ala Asp		400
	405	410
Met Ser Ser Lys Ser Ala Asn Tyr Cys Phe Ala Ser Arg Leu Lys Asn		415
	420	425
Thr Gly Leu Leu Leu Ser Glu Val Ala Leu Gly Gln Cys Asn Glu		430
	435	440
Leu Leu Glu Ala Asn Pro Lys Ala Glu Gly Leu Leu Gln Gly Lys His		445
	450	455
Ser Thr Lys Gly Leu Gly Lys Met Ala Pro Ser Ser Ala His Phe Val		460
465	470	475
Thr Leu Asn Gly Ser Thr Val Pro Leu Gly Pro Ala Ser Asp Thr Gly		480

	485		490		495
Ile Leu Asn Pro Asp Gly Tyr Thr	Leu Asn Tyr Asn Glu Tyr Ile Val				
	500		505		510
Tyr Asn Pro Asn Gln Val Arg Met Arg Tyr Leu Leu Lys Val Gln Phe					
	515		520		525
Asn Phe Leu Gln Leu Trp					
530					

&lt;210&gt; 5347&lt;211&gt; 2893

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5347

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<210> 5348

<211> 694

<212> PRT

<213> Homo sapiens

<400> 5348

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		20						25					30		
Tyr	Leu	Leu	Leu	Pro	Pro	Pro	Thr	Leu	Leu	Gln	Asp	Glu	Leu	Leu	Phe
	35					40					45				
Leu	Gly	Gly	Pro	Ala	Ser	Ser	Ala	Tyr	Ala	Leu	Ser	Pro	Phe	Ser	Ala
	50				55					60					
Ser	Gly	Gly	Trp	Gly	Arg	Ala	Gly	His	Leu	His	Pro	Lys	Gly	Arg	Glu
65				70				75						80	
Leu	Asp	Pro	Ala	Ala	Pro	Pro	Glu	Gly	Gln	Leu	Leu	Arg	Glu	Val	Arg
			85					90					95		
Ala	Leu	Gly	Val	Pro	Phe	Val	Pro	Arg	Thr	Ser	Val	Asp	Ala	Trp	Leu
			100				105						110		
Val	His	Ser	Val	Ala	Ala	Gly	Ser	Ala	Asp	Glu	Ala	His	Gly	Leu	Leu
	115					120						125			
Gly	Ala	Ala	Ala	Ala	Ser	Ser	Thr	Gly	Gly	Ala	Gly	Ala	Ser	Val	Asp
	130				135					140					
Gly	Gly	Ser	Gln	Ala	Val	Gln	Gly	Gly	Cys	Gly	Asp	Ser	Arg	Ala	Ala
145				150					155					160	
Arg	Ser	Gly	Pro	Leu	Asp	Ala	Gly	Glu	Glu	Glu	Lys	Ala	Pro	Ala	Glu
			165					170						175	
Pro	Thr	Ala	Gln	Val	Pro	Asp	Ala	Gly	Gly	Cys	Ala	Ser	Glu	Glu	Asn
			180					185					190		
Gly	Val	Leu	Arg	Glu	Lys	His	Glu	Ala	Val	Asp	His	Ser	Ser	Gln	His
	195					200					205				
Glu	Glu	Asn	Glu	Glu	Arg	Val	Ser	Ala	Gln	Lys	Glu	Asn	Ser	Leu	Gln
	210					215					220				
Gln	Asn	Asp	Asp	Asp	Asp	Asn	Lys	Ile	Ala	Glu	Lys	Pro	Asp	Trp	Glu
225				230						235				240	
Ala	Glu	Lys	Thr	Thr	Glu	Ser	Arg	Asn	Glu	Arg	His	Leu	Asn	Gly	Thr
			245					250						255	
Asp	Thr	Ser	Phe	Ser	Leu	Glu	Asp	Leu	Phe	Gln	Leu	Leu	Ser	Ser	Gln
	260						265						270		
Pro	Glu	Asn	Ser	Leu	Glu	Gly	Ile	Ser	Leu	Gly	Asp	Ile	Pro	Leu	Pro
	275					280						285			
Gly	Ser	Ile	Ser	Asp	Gly	Met	Asn	Ser	Ser	Ala	His	Tyr	His	Val	Asn
	290				295						300				
Phe	Ser	Gln	Ala	Ile	Ser	Gln	Asp	Val	Asn	Leu	His	Glu	Ala	Ile	Leu
305				310						315				320	
Leu	Cys	Pro	Asn	Asn	Thr	Phe	Arg	Arg	Asp	Pro	Thr	Ala	Arg	Thr	Ser
			325					330						335	
Gln	Ser	Gln	Glu	Pro	Phe	Leu	Gln	Leu	Asn	Ser	His	Thr	Thr	Asn	Pro

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Glu Gln Thr Leu Pro Gly Thr Asn Leu Thr Gly Phe Leu Ser Pro Val
          355          360          365
Asp Asn His Met Arg Asn Leu Thr Ser Gln Asp Leu Leu Tyr Asp Leu
          370          375          380
Asp Ile Asn Ile Phe Asp Gly Ile Asn Leu Met Ser Leu Ala Thr Glu
          385          390          395
Asp Asn Phe Asp Pro Ile Asp Val Ser Gln Leu Phe Asp Glu Ser Asp
          405          410          415
Ser Asp Ser Gly Leu Ser Leu Asp Ser Ser His Asn Asn Thr Ser Val
          420          425          430
Ile Lys Ser Asn Ser Ser His Ser Val Cys Asp Glu Gly Ala Ile Gly
          435          440          445
Tyr Cys Thr Asp His Glu Ser Ser Ser His His Asp Leu Glu Gly Ala
          450          455          460
Val Gly Gly Tyr Tyr Pro Glu Pro Ser Lys Leu Cys His Leu Asp Gln
          465          470          475
Ser Asp Ser Asp Phe His Gly Asp Leu Thr Phe Gln His Val Phe His
          485          490          495
Asn His Thr Tyr His Leu Gln Pro Thr Ala Pro Glu Ser Thr Ser Glu
          500          505          510
Pro Phe Pro Trp Pro Gly Lys Ser Gln Lys Ile Arg Ser Arg Tyr Leu
          515          520          525
Glu Asp Thr Asp Arg Asn Leu Ser Arg Asp Glu Gln Arg Ala Lys Ala
          530          535          540
Leu His Ile Pro Phe Ser Val Asp Glu Ile Val Gly Met Pro Val Asp
          545          550          555
Ser Phe Asn Ser Met Leu Ser Arg Tyr Tyr Leu Thr Asp Leu Gln Val
          565          570          575
Asp Ile Arg Arg Arg Gly Lys Asn Lys Val Ala Ala
          580          585          590
Gln Asn Cys Arg Lys Arg Lys Leu Asp Ile Ile Leu Asn Leu Glu Asp
          595          600          605
Asp Val Cys Asn Leu Gln Ala Lys Lys Glu Thr Leu Lys Arg Glu Gln
          610          615          620
Ala Gln Cys Asn Lys Ala Ile Asn Ile Met Lys Gln Lys Leu His Asp
          625          630          635
Leu Tyr His Asp Ile Phe Ser Arg Leu Arg Asp Asp Gln Gly Arg Pro
          645          650          655
Val Asn Pro Asn His Tyr Ala Leu Gln Cys Thr His Asp Gly Ser Ile
          660          665          670
Leu Ile Val Pro Lys Glu Leu Val Ala Ser Gly His Lys Lys Glu Thr
          675          680          685
Gln Lys Gly Lys Arg Lys
          690

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&lt;210&gt; 5349

&lt;211&gt; 425

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5349

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 120  
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 180  
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 240  
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 300  
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 cgcgt  
 425

<210> 5350

<211> 134

<212> PRT

<213> Homo sapiens

<400> 5350

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Val	Thr	Ala	Cys	His	Ser	Ser	Pro	Leu	Pro	Cys	Gly	Cys	Gln	Asp	Asn
			20					25					30		
Leu	Gly	Lys	His	His	Thr	Ser	Arg	Glu	Pro	Gln	Ala	Gln	Pro	Lys	Pro
		35					40					45			
His	Lys	Val	Ser	Ser	Gln	Glu	Gly	Glu	Arg	Ile	Pro	Leu	Pro	Gly	
	50				55				60						
Lys	Ala	Glu	Val	Arg	Glu	Ala	Gly	Gln	Pro	Ile	Pro	Val	Ser	Leu	Leu
65				70				75						80	
Leu	Leu	Ser	Pro	Lys	Lys	Ala	Leu	Thr	Leu	Ala	Thr	Ala	Gln	Gly	
			85					90					95		
Gly	His	Glu	Gly	Leu	Gly	Arg	Leu	Leu	Trp	Gln	Ser	Gly	Pro	Leu	Gln
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Pro	Arg	Pro	Glu	Lys	Lys	Arg	Thr	Pro	Lys	Ser	Phe	Trp	Leu	Pro	Val
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<212> DNA

<213> Homo sapiens

<400> 5351

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<211> 605

<212> PRT

<213> Homo sapiens

<400> 5354

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Phe	Trp	Cys	Thr	Ala	Asp	Ile	Gly	Trp	Ile	Thr	Gly	His	Ser	Tyr	Val
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      355              360              365
Phe Trp Gln Thr Glu Thr Gly Gly His Met Leu Thr Pro Leu Pro Val
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Val Tyr Gly Asn His Glu Arg Phe Glu Thr Thr Tyr Ser Lys Lys Phe
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Glu Cys Leu Tyr Cys Phe Val Thr Leu Cys Asp Gly His Thr Phe Ser
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Pro Lys Leu Thr Glu Glu Leu Lys Lys Gln Ile Arg Glu Lys Ile Gly
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Pro Ile Ala Thr Pro Asp Tyr Ile Gln Asn Ala Pro Gly Leu Pro Lys
  545              550              555
Thr Arg Ser Gly Lys Ile Met Arg Arg Val Leu Arg Lys Ile Ala Gln
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&lt;210&gt; 5355

&lt;211&gt; 1596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5355

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&lt;210&gt; 5356

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5356

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Leu Glu Glu Thr Gly Ile Cys Val Val Pro Gly Ser Gly Phe Gly Gln
195           200           205
Arg Glu Gly Thr Tyr His Phe Arg Met Thr Ile Leu Pro Pro Val Glu
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&lt;210&gt; 5357

&lt;211&gt; 1722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5357

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&lt;210&gt; 5358

&lt;211&gt; 321

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5358

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Arg	Phe	Ala	Leu	Pro	Thr
	85		90		95
Lys	His	Ile	Tyr	Leu	Ser
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Pro	Tyr	Thr	Pro	Val	Thr
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Glu	Phe	Arg	Gly	Pro	Ser
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Phe	Asn	Ile	Gln	Pro	Asn
	180		185		190
Lys	Lys	Leu	Gly	Met	Ile
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Gln	Leu	Ile	Arg	Ala	Ile
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Phe	Leu	Leu	Phe	Ala	Asn
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Phe	Thr	Leu	Asp	His	Pro
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Val	Thr	Ala	Asp	Met	Ile
	275		280		285
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His	Pro	Asn	Leu	Asp	Lys
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Tyr					

&lt;210&gt; 5359

&lt;211&gt; 5003

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5359

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&lt;211&gt; 1406

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5360

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 His Phe Ala Arg Val Asn Phe Glu Glu Phe Lys Glu Gly Phe Val Ala  
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 Val Leu Ser Ser Asn Ala Gly Val Arg Pro Ser Asp Glu Asp Ser Ser  
 100 105 110  
 Ser Leu Glu Ser Ala Ala Ser Ser Ala Ile Pro Pro Lys Tyr Val Asn  
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 Gly Ser Lys Trp Tyr Gly Arg Arg Ser Arg Pro Glu Leu Cys Asp Ala  
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 Ala Thr Glu Ala Arg Arg Val Pro Glu Gln Gln Thr Gln Ala Ser Leu  
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 Lys Ser His Leu Trp Arg Ser Ala Ser Leu Glu Ser Val Glu Ser Pro  
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 Lys Ser Asp Glu Glu Ala Glu Ser Thr Lys Glu Ala Gln Asn Glu Leu  
 180 185 190  
 Phe Glu Ala Gln Gly Gln Leu Gln Thr Trp Asp Ser Glu Asp Phe Gly  
 195 200 205  
 Ser Pro Gln Lys Ser Cys Ser Pro Ser Phe Asp Thr Pro Glu Ser Gln  
 210 215 220  
 Ile Arg Gly Val Trp Glu Glu Leu Gly Val Gly Ser Ser Gly His Leu  
 225 230 235 240  
 Ser Glu Gln Glu Leu Ala Val Val Cys Gln Ser Val Gly Leu Gln Gly  
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 Leu Glu Lys Glu Glu Leu Glu Asp Leu Phe Asn Lys Leu Asp Gln Asp  
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His Ser Thr Leu Glu Gln Leu Thr Glu Lys Lys Ile Lys His Leu Glu
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Gln Gly Tyr Arg Glu Arg Leu Ser Leu Leu Arg Ser Glu Val Glu Ala
465              470              475              480
Glu Arg Glu Leu Phe Trp Glu Gln Ala His Arg Gln Arg Ala Ala Leu
              485              490              495
Glu Trp Asp Val Gly Arg Leu Gln Ala Glu Glu Ala Gly Leu Arg Glu
              500              505              510
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Ser Pro Ser Trp Ser Pro Asp Gly Arg Arg Arg Gln Leu Pro Gly Leu
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Glu Thr Glu Leu Met Met Glu Gln Val Lys Glu His Tyr Gln Asp Leu
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Arg Thr Gln Leu Glu Thr Lys Val Asn Tyr Tyr Glu Arg Glu Ile Ala
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Ala Leu Lys Arg Asn Phe Glu Lys Glu Arg Lys Asp Met Glu Gln Ala
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Arg Arg Arg Glu Val Ser Val Leu Glu Gly Gln Lys Ala Asp Leu Glu
690              695              700
Glu Leu His Glu Lys Ser Gln Glu Val Ile Trp Gly Leu Gln Glu Gln
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&lt;210&gt; 5361

&lt;211&gt; 1080

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5361

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 <213> Homo sapiens

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&lt;210&gt; 5364

&lt;211&gt; 187

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5364

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Leu	Phe	Gly	Gln	Pro	Pro	Cys	Ala	Phe	Val	Thr	Phe	Arg	Ser	Ala	Ala
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Glu	Arg	Asp	Lys	Ala	Leu	Arg	Val	Leu	His	Gly	Ala	Leu	Trp	Lys	Gly
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Gly	Arg	Arg	Gly	Asp	Pro	Ser	Met	Asp	Ser	Ala	Leu	Xaa	Leu	Ser	Ser
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Leu	Ser	Gly	Ser	Ser	Trp	Ser	Ala	Ser	Arg	Cys	Cys	Arg	Asn	Xaa	Ala
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Gln	Glu	Ile	Gly	Ser	Thr	Asn	Arg	Ala	Leu	Arg					
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&lt;210&gt; 5365

&lt;211&gt; 1824

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5365

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<210> 5366

<211> 477

<212> PRT

<213> Homo sapiens

<400> 5366

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 Gly Lys Lys Gly Arg Arg Lys Arg Lys Gly Ser Phe Pro Cys Pro Glu  
 50 55 60  
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 Thr Lys Val Ala Glu Met Ala Gln Gln His Pro Gly Leu Gln Lys Gln  
 85 90 95  
 Asp Leu Cys Gln Glu His His Glu Pro Leu Lys Leu Phe Cys Gln Lys  
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 Asp Gln Ser Pro Ile Cys Val Val Cys Arg Glu Ser Arg Glu His Arg  
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 Lys Leu Glu Glu Asp Met Glu Tyr Leu Arg Glu Gln Ile Thr Arg Thr  
 145 150 155 160  
 Gly Asn Leu Gln Ala Arg Glu Glu Gln Ser Leu Ala Glu Trp Gln Gly  
 165 170 175  
 Lys Val Lys Glu Arg Arg Glu Arg Ile Val Leu Glu Phe Glu Lys Met  
 180 185 190  
 Asn Leu Tyr Leu Val Glu Glu Glu Gln Arg Leu Leu Gln Ala Leu Glu  
 195 200 205  
 Thr Glu Glu Glu Glu Thr Ala Ser Arg Leu Arg Glu Ser Val Ala Cys  
 210 215 220  
 Leu Asp Arg Gln Gly His Ser Leu Glu Leu Leu Leu Gln Leu Glu  
 225 230 235 240  
 Glu Arg Ser Thr Gln Gly Pro Leu Gln Met Leu Gln Asp Met Lys Glu  
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&lt;210&gt; 5367

<211> 549

<212> DNA

<213> Homo sapiens

<400> 5367

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 <212> PRT  
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 35 40 45  
 Thr Lys Glu Gly Ala Ala Ser Pro Ala Pro Glu Thr Pro Gln Pro Thr  
 50 55 60  
 Ser Pro Glu Thr Ser Pro Lys Glu Thr Pro Met Gln Pro Pro Glu Ile  
 65 70 75 80  
 Pro Ala Pro Ala His Arg Pro Pro Glu Asp Glu Gly Glu Glu Asn Glu  
 85 90 95  
 Gly Glu Glu Asp Glu Glu Trp Glu Asp Ile Ser Glu Asp Glu Glu Glu  
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<210> 5369  
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 <212> DNA  
 <213> Homo sapiens

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<210> 5370

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5370

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His Leu Asp Glu Lys Asp Leu Lys Pro Leu Phe Glu Gln Phe Gly Arg
 20           25           30
Ile Tyr Glu Leu Thr Val Leu Lys Asp Pro Tyr Thr Gly Met His Lys
 35           40           45
Gly Gly Arg Pro Ala Pro Ser Pro Leu Ser Pro Ser Leu Arg Leu Pro
 50           55           60
Pro His Leu Pro Ala Ser Ser Leu Pro His His Pro Ser Ser Ala
 65           70           75           80
His Leu Pro Pro Leu Pro Ala Ser Ala Gly Ala Ser Val Leu Thr Pro
 85           90           95
Ser Leu Pro Pro Thr Pro Pro Pro Leu Ser Gly Gly Ala Ala Asp Arg
100           105           110
Ser Glu Arg Ala Pro Ser Pro Pro Pro Pro Leu Pro Pro Ser Pro
115           120           125
Pro Ser Gly Ile Ser Ser Leu Ser Pro Ser Leu Ser Pro Ser Leu Ser
130           135           140
Pro Phe Leu Phe
145

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&lt;210&gt; 5371

&lt;211&gt; 1177

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5371

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&lt;210&gt; 5372

&lt;211&gt; 368

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5372

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Val	Val	Gly	Phe	Gly	Gly	Ile	His	Ser	Thr	Pro	Ser	Thr	Val	Leu	Ser
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Thr	Ala	Ser	Leu	Ala	Pro	Arg	Met	Ser	Asn	Gln	Gly	Ile	Ala	Val	Leu
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			85						90				95		
Arg	Ala	Glu	Ser	Arg	Cys	Trp	Arg	Tyr	Asp	Pro	Arg	His	Asn	Arg	Trp
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Xaa	Pro	Asp	Pro	Val	Pro	Ala	Ala	Gly	Ala	Arg	Arg	Pro	Val	Xaa	Val
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Cys	Val	Val	Gly	Arg	Tyr	Ile	Tyr	Ala	Val	Ala	Gly	Arg	Asp	Tyr	His
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Gln	Trp	Ser	Ser	Val	Cys	Pro	Leu	Pro	Ala	Gly	His	Gly	Glu	Pro	Gly
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&lt;210&gt; 5373

&lt;211&gt; 4221

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5373

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<210> 5374

<211> 886

<212> PRT

<213> Homo sapiens

<400> 5374

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Lys	Lys	Ser	Leu	Gln	Glu	Lys	Gly	Lys	Leu	Ser	Ala	Glu	Glu	Asn	Pro
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Asp	Asp	Ser	Glu	Val	Pro	Ser	Ser	Ser	Gly	Ile	Asn	Ser	Thr	Lys	Ser
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Gln	Asp	Lys	Asp	Val	Asn	Glu	Gly	Glu	Thr	Ser	Asp	Gly	Val	Arg	Lys
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Ser	Val	His	Lys	Val	Phe	Ala	Ser	Met	Leu	Gly	Glu	Asn	Glu	Asp	Asp
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Leu	Pro	Arg	Ala	Leu	Arg	Gly	Leu	Met	Gly	Glu	Ala	Asn	Ile	Arg	Phe
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Gly	Tyr	Arg	Arg	Ile	Leu	Asn	Leu	Leu	Ser	Pro	Ser	Asp	Gly	Glu	Arg
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Gln	Gly	Leu	Val	Ser	Met	Glu	Asp	Val	Asn	Ile	Ala	Ala	Glu	Leu	Tyr
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 675 680 685  
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 705 710 715 720  
 Phe Cys Leu Arg Leu Met Leu Lys Asn Pro Glu Asn His Ala Leu Cys  
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 Val Leu Asn Gly His Asn Ala Phe Val Ser Gly Ser Phe Lys His Ala  
 740 745 750  
 Leu Gly Gln Tyr Val Gln Ala Phe Arg Thr His Pro Asp Glu Pro Leu  
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 Tyr Ser Phe Cys Ile Gly Leu Thr Phe Ile His Met Ala Ser Gln Lys

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Asn Arg Tyr Leu Ser Ser Leu Arg Gly Pro Cys Gln Glu Ser Phe Tyr Asn
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Leu Gly Arg Gly Leu His Gln Leu Gly Leu Ile His Leu Ala Ile His
      820              825              830
Tyr Tyr Gln Lys Ala Leu Glu Leu Pro Pro Leu Val Val Glu Gly Ile
      835              840              845
Glu Leu Asp Gln Leu Asp Leu Arg Arg Asp Ile Ala Tyr Asn Leu Ser
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Leu Ile Tyr Gln Ser Ser Gly Asn Thr Gly Met Ala Gln Thr Leu Leu
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&lt;210&gt; 5375

&lt;211&gt; 526

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5375

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526

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&lt;210&gt; 5376

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5376

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20          25          30
Leu Gln Arg Ala Ala Ala Ser Ser Glu Ser Pro Val Ala Arg Thr Trp
35          40          45
Val Gln Leu Lys Ser Ile Ser Leu Phe Ala Phe Ser Glu Ala Ser Pro

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Cys	His	Arg	Pro	Arg	Thr	Ile	Ser	Ile	Phe	Asn	Pro	Arg	Asn	His	Thr		
				85					90					95			
Gly	Asp	Gly	Trp	Gly	Met	Phe	Met	Ser	Pro	Phe	Tyr	Arg	Ser	Gly	Asp		
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&lt;210&gt; 5377

&lt;211&gt; 1452

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5377

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<211> 374

<212> PRT

<213> Homo sapiens

<400> 5378

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Thr	Pro	Pro	Arg	Arg	Ala	Pro	Asp	Gln	Ala	Ala	Glu	Ile	Gly	Ser	Arg
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Gly	Ser	Thr	Lys	Ala	Gln	Gly	Pro	Gln	Gln	Gln	Pro	Gly	Ser	Glu	Gly
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Ala	Gly	Gly	Thr	Val	Ser	Val	Val	Tyr	Ile	Phe	Gly	Asn	Asn	Pro	Val
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Gln	Met	Ile	Ile	Glu	Pro	Thr	Ser	Pro	Cys	Leu	Leu	Pro	Asp	Pro	Leu
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Asp	Gly	Asn	Ser	Asp	Asp	Arg	Val	Leu	Leu	Asp	Leu	Ser	Ala	Phe	Leu

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His Tyr Ala Leu Glu Asp Asp Pro Leu Ala Ala Phe Lys Gln Arg Gln				
	325		330	335
Ser Arg Leu Glu Gln Glu Glu Gln Gln Arg Leu Ala Glu Leu Ser Lys				
	340		345	350
Ser Asn Lys Gln Asn Leu Phe Leu Gly Ser Leu Thr Ser Arg Leu Trp				
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Pro Arg Ser Lys Gln Pro				
370				

&lt;210&gt; 5379

&lt;211&gt; 3213

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5379

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&lt;210&gt; 5380

&lt;211&gt; 903

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5380

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 50 55 60  
 Gln Ala Arg Met Val Leu Arg Cys Cys Ser Glu Phe Ile Glu Ala His  
 65 70 75 80  
 Gly Val Val Asp Gly Ile Tyr Arg Leu Ser Gly Val Ser Ser Asn Ile  
 85 90 95  
 Gln Arg Leu Arg His Glu Phe Asp Ser Glu Arg Ile Pro Glu Leu Ser  
 100 105 110  
 Gly Pro Ala Phe Leu Gln Asp Ile His Ser Val Ser Ser Leu Cys Lys  
 115 120 125  
 Leu Tyr Phe Arg Glu Leu Pro Asn Pro Leu Leu Thr Tyr Gln Leu Tyr  
 130 135 140  
 Gly Lys Phe Ser Glu Ala Met Ser Val Pro Gly Glu Glu Glu Arg Leu  
 145 150 155 160  
 Val Arg Val His Asp Val Ile Gln Gln Leu Pro Pro Pro His Tyr Arg  
 165 170 175  
 Thr Leu Glu Tyr Leu Leu Arg His Leu Ala Arg Met Ala Arg His Ser  
 180 185 190  
 Ala Asn Thr Ser Met His Ala Arg Asn Leu Ala Ile Val Trp Ala Pro  
 195 200 205  
 Asn Leu Leu Arg Ser Met Glu Leu Glu Ser Val Gly Met Gly Gly Ala  
 210 215 220  
 Ala Ala Phe Arg Glu Val Arg Val Gln Ser Val Val Val Glu Phe Leu

225					230					235					240
Leu	Thr	His	Val	Asp	Val	Leu	Phe	Ser	Asp	Thr	Phe	Thr	Ser	Ala	Gly
				245					250						255
Leu	Asp	Pro	Ala	Gly	Arg	Cys	Leu	Leu	Pro	Arg	Pro	Lys	Ser	Leu	Ala
			260						265						270
Gly	Ser	Cys	Pro	Ser	Thr	Arg	Leu	Leu	Thr	Leu	Glu	Glu	Ala	Gln	Ala
			275						280						
Arg	Thr	Gln	Gly	Arg	Leu	Gly	Thr	Pro	Thr	Glu	Pro	Thr	Thr	Pro	Lys
Ala	Pro	Ala	Ser	Pro	Ala	Glu	Arg	Arg	Lys	Gly	Glu	Arg	Gly	Glu	Lys
305					310					315					320
Gln	Arg	Lys	Pro	Gly	Gly	Ser	Ser	Trp	Lys	Thr	Phe	Phe	Ala	Leu	Gly
Arg	Gly	Pro	Ser	Val	Pro	Arg	Lys	Lys	Pro	Leu	Pro	Trp	Leu	Gly	Gly
Thr	Arg	Ala	Pro	Pro	Gln	Pro	Ser	Ala	Trp	Leu	Asp	Asp	Gly	Asp	Glu
Leu	Asp	Phe	Ser	Pro	Pro	Arg	Cys	Leu	Glu	Gly	Leu	Arg	Gly	Leu	Asp
370															
Phe	Asp	Pro	Leu	Thr	Phe	Arg	Cys	Ser	Ser	Pro	Thr	Pro	Gly	Asp	Pro
385					390					395					400
Ala	Pro	Pro	Ala	Ser	Pro	Ala	Pro	Pro	Ala	Pro	Ala	Ser	Ala	Phe	Pro
					405					410					415
Pro	Arg	Val	Thr	Pro	Gln	Ala	Ile	Ser	Pro	Arg	Gly	Pro	Thr	Ser	Pro
Ala	Ser	Pro	Ala	Ala	Leu	Asp	Ile	Ser	Glu	Pro	Leu	Ala	Val	Ser	Val
Pro	Pro	Ala	Val	Leu	Glu	Leu	Leu	Gly	Ala	Gly	Gly	Ala	Pro	Ala	Ser
Ala	Thr	Pro	Thr	Pro	Ala	Leu	Ser	Pro	Gly	Arg	Ser	Leu	Arg	Pro	His
465					470					475					480
Leu	Ile	Pro	Leu	Leu	Leu	Arg	Gly	Ala	Glu	Ala	Pro	Leu	Thr	Asp	Ala
Cys	Gln	Gln	Glu	Met	Cys	Ser	Lys	Leu	Arg	Gly	Ala	Gln	Gly	Pro	Leu
Ala	Arg	Leu	Met	Ala	Leu	Ala	Leu	Ala	Glu	Arg	Ala	Gln	Gln	Val	Ala
Glu	Gln	Gln	Ser	Gln	Gln	Glu	Cys	Gly							

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 675 680 685  
 Leu Gly Pro Pro Ala Pro Leu Asp Arg Gly Glu Asn Leu Tyr Tyr Glu  
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 Ile Gly Ala Ser Glu Gly Ser Pro Tyr Ser Gly Pro Thr Arg Ser Trp  
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 Ser Pro Phe Arg Ser Met Pro Pro Asp Arg Leu Asn Ala Ser Tyr Gly  
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 Met Leu Gly Gln Ser Pro Pro Leu His Arg Ser Pro Asp Phe Leu Leu  
 740 745 750  
 Ser Tyr Pro Pro Ala Pro Ser Cys Phe Pro Pro Asp His Leu Gly Tyr  
 755 760 765  
 Ser Ala Pro Gln His Pro Ala Arg Arg Pro Thr Pro Pro Glu Pro Leu  
 770 775 780  
 Tyr Val Asn Leu Ala Leu Gly Pro Arg Gly Pro Ser Pro Ala Ser Ser  
 785 790 795 800  
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 820 825 830  
 Arg Thr Pro Pro His Arg Val Pro Gly Pro Trp Gly Pro Pro Glu Pro Leu  
 835 840 845  
 Leu Leu Tyr Arg Ala Ala Pro Pro Ala Tyr Gly Arg Gly Gly Glu Leu  
 850 855 860  
 His Arg Gly Ser Leu Tyr Arg Asn Gly Gly Gln Arg Gly Glu Gly Ala  
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<210> 5381  
 <211> 1576  
 <212> DNA  
 <213> Homo sapiens

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 ggctattact tcaactggaga cggggcttac cgaactgagg gcggttatta ccagatcaca  
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&lt;210&gt; 5382

&lt;211&gt; 223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5382

Xaa Met Ala Met Arg Pro Phe Phe Gly Ile Val Pro Val Leu Met Asp  
 1 5 10 15  
 Glu Lys Gly Ser Val Val Glu Gly Ser Asn Val Ser Gly Ala Leu Cys  
 20 25 30  
 Ile Ser Gln Ala Trp Pro Gly Met Ala Arg Thr Ile Tyr Gly Asp His  
 35 40 45  
 Gln Arg Phe Val Asp Ala Tyr Phe Lys Ala Tyr Pro Gly Tyr Tyr Phe  
 50 55 60  
 Thr Gly Asp Gly Ala Tyr Arg Thr Glu Gly Gly Tyr Tyr Gln Ile Thr

65		70		75		80									
Gly	Arg	Met	Asp	Asp	Val	Ile	Asn	Ile	Ser	Gly	His	Arg	Leu	Gly	Thr
			85						90					95	
Ala	Glu	Ile	Glu	Asp	Ala	Ile	Ala	Asp	His	Pro	Ala	Val	Pro	Glu	Ser
			100					105					110		
Ala	Val	Ile	Gly	Tyr	Pro	His	Asp	Ile	Lys	Gly	Glu	Ala	Ala	Phe	Ala
		115					120					125			
Phe	Ile	Val	Val	Lys	Asp	Ser	Ala	Gly	Asp	Ser	Asp	Val	Val	Val	Gln
	130				135					140					
Glu	Leu	Lys	Ser	Met	Val	Ala	Thr	Lys	Ile	Ala	Lys	Tyr	Ala	Val	Pro
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Asp	Glu	Ile	Leu	Val	Val	Lys	Arg	Leu	Pro	Lys	Thr	Arg	Ser	Gly	Lys
			165					170						175	
Val	Met	Arg	Arg	Leu	Leu	Arg	Lys	Ile	Ile	Thr	Ser	Glu	Ala	Gln	Glu
			180					185				190			
Leu	Gly	Asp	Thr	Thr	Thr	Leu	Glu	Asp	Pro	Ser	Ile	Ile	Ala	Glu	Ile
	195					200					205				
Leu	Ser	Val	Tyr	Gln	Lys	Cys	Lys	Asp	Lys	Gln	Ala	Ala	Ala	Lys	
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&lt;210&gt; 5383

&lt;211&gt; 2027

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5383

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 2027

&lt;210&gt; 5384

&lt;211&gt; 508

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5384

Ile Val Ser Thr Gln Glu Lys Leu Val Gln Pro Phe Ser Ser Leu  
 1 5 10 15  
 Phe Pro Lys Val Glu Tyr Ile Ala Arg Ala Gly Ala Trp Ala Met Phe  
 20 25 30  
 Leu Asp Arg Pro Gln Gln Trp Leu Gln Leu Val Leu Leu Pro Pro Ala  
 35 40 45  
 Leu Phe Ile Pro Ser Thr Glu Asn Glu Glu Gln Arg Leu Ala Ser Ala

50						55						60					
Arg Ala Val Pro	Arg Asn Val Gln Pro Tyr	Val Val Tyr Glu Glu Val	80	Val	65	Thr Asn Val Trp	Ile Asn Val His Asp	Ile Phe Tyr Pro Phe	Pro Gln	100	Ser Glu Gly Glu	Asp Glu Leu Cys Phe	Leu Arg Ala Asn Glu Cys	Lys			
70	85	90	105	110	115	120	125	130	135	140	145	150	155	160			
Thr Asn Val Trp	Ile Asn Val His Asp	Ile Phe Tyr Pro Phe	Pro Gln	100	Ser Glu Gly Glu	Asp Glu Leu Cys Phe	Leu Arg Ala Asn Glu Cys	Lys	110	Thr Gly Phe Cys His	Leu Tyr Lys Val	Leu Tyr Val	Thr Phe	160			
115	120	125	130	135	140	145	150	155	160	165	170	175	180	185			
Gly Tyr Asp Trp	Ser Glu Pro Phe Ser	Pro Gly Glu Gly	Gln Ser	110	Leu Thr Asn Ala	Ile Trp Val Asn Glu	Leu Thr Lys Leu	Val Tyr	Phe	120	Gln Gly Thr Lys	Asp Thr Pro	Leu Glu His	His			
130	135	140	145	150	155	160	165	170	175	180	185	190	195	200			
Leu Thr Asn Ala	Ile Trp Val Asn Glu	Leu Thr Lys Leu	Val Tyr	Phe	120	Gln Gly Thr Lys	Asp Thr Pro	Leu Glu His	His	130	Tyr Glu Ala Ala	Gly Glu Ile	Val Arg	Leu			
145	150	155	160	165	170	175	180	185	190	195	200	205	210	215			
Gln Gly Thr Lys	Asp Thr Pro	Leu Glu His	His	Leu Tyr	Val	Val	Ser	Gln Asn	Phe Asp	Met	Phe	Val	Ser	His			
165	170	175	180	185	190	195	200	205	210	215	220	225	230	235			
Tyr Glu Ala Ala	Gly Glu Ile	Val Arg	Leu Thr	Thr	Pro	Gly Phe	Ser	Gln Asn	Phe Asp	Met	Phe	Val	Ser	His			
180	185	190	195	200	205	210	215	220	225	230	235	240	245	250			
His Ser Cys Ser	Met Ser	Gln Asn	Phe Asp	Met	Phe	Val	Ser	Gln Asn	Phe Asp	Met	Phe	Val	Ser	His			
195	200	205	210	215	220	225	230	235	240	245	250	255	260	265			
Ser Ser Val Ser	Thr Pro	Cys Val	His	Val	Tyr	Lys	Leu	Ser	Gly	205	Thr Val	Arg	Ser	Asp			
210	215	220	225	230	235	240	245	250	255	260	265	270	275	280			
Pro Asp Asp Asp	Pro Leu	His Lys	Gln Pro	Arg	Phe	Trp	Ala	Ser	Met	210	Ser Val	Ser	Thr	Pro			
225	230	235	240	245	250	255	260	265	270	275	280	285	290	295			
Met Glu Ala Ala	Lys Ile	Phe His	Phe His	Thr	Arg	Ser	Asp	Val	Arg	225	Glu Thr	Gly Met	Ile Tyr	Lys			
245	250	255	260	265	270	275	280	285	290	295	300	305	310	315			
Leu Tyr Gly Met	Ile Tyr	Lys Pro	His Ala	Leu Gln	Pro	Gly Lys	Lys	Val	Arg	245	Thr Val	Leu Phe	Lys Gly	Ile			
260	265	270	275	280	285	290	295	300	305	310	315	320	325	330			
His Pro Thr Val	Leu Phe	Val Tyr	Gly Gly	Pro Gln	Val	Gln Leu	Val	Thr	Arg	260	Leu Thr	Gly Met	Ile Tyr	Lys			
275	280	285	290	295	300	305	310	315	320	325	330	335	340	345			
Asn Asn Ser Phe	Lys Gly	Ile Lys	Tyr Leu	Arg Leu	Asn Thr	Leu Ala	300	305	310	315	320	325	330	335			
290	295	300	305	310	315	320	325	330	335	340	345	350	355	360			
Ser Leu Gly Tyr	Ala Val	Val Val	Ile Asp	Gly Arg	Gly Ser	Cys Gln	305	310	315	320	325	330	335	340			
305	310	315	320	325	330	335	340	345	350	355	360	365	370	375			
Arg Gly Leu Arg	Phe Glu	Gly Ala	Leu Lys	Asn Gln	Met Gly	Gln Val	310	315	320	325	330	335	340	345			
315	320	325	330	335	340	345	350	355	360	365	370	375	380	385			
Glu Ile Glu Asp	Gln Val	Glu Gly	Leu Gln	Phe Val	Ala Glu	Lys Tyr	315	320	325	330	335	340	345	350			
340	345	350	355	360	365	370	375	380	385	390	395	400	405	410			
Gly Phe Ile Asp	Leu Ser	Arg Val	Ala Ile	His Gly	Trp Ser	Tyr Gly	340	345	350	355	360	365	37				



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<210> 5388  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 5388  
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 Phe Thr Trp Cys Phe Cys Phe Ser Met Thr Leu Ile Ile Leu Ile Val  
 35 40 45  
 Glu Leu Cys Gly Leu Gln Ala Arg Phe Pro Leu Ser Trp Arg Asn Phe  
 50 55 60  
 Pro Ile Thr Phe Ala Cys Tyr Ala Ala Leu Phe Cys Leu Ser Ala Ser  
 65 70 75 80  
 Ile Ile Tyr Pro Thr Thr Tyr Val Gln Phe Leu Ser His Gly Arg Ser  
 85 90 95  
 Arg Asp His Ala Ile Ala Ala Thr Phe Phe Ser Cys Ile Ala Cys Val  
 100 105 110  
 Ala Tyr Ala Thr Glu Met Ala Trp Thr Arg Ala Arg Ala  
 115 120 125

<210> 5389  
 <211> 1711  
 <212> DNA  
 <213> Homo sapiens

<400> 5389  
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 420

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 1680  
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 1711

&lt;210&gt; 5390

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5390

Met Ser Cys Val His Tyr Lys Phe Ser Ser Lys Leu Asn Tyr Asp Thr

1 5 10 15

Val Thr Phe Asp Gly Leu His Ile Ser Leu Cys Asp Leu Lys Lys Gln

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Ile Met Gly Arg Glu Lys Leu Lys Ala Ala Asp Cys Asp Leu Gln Ile					
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Thr Asn Ala Gln Thr Lys Glu Glu Tyr Thr Asp Asp Asn Ala Leu Ile					
	50		55		60
Pro Lys Asn Ser Ser Val Ile Val Arg Arg Ile Pro Ile Gly Gly Val					
	65		70		75
Lys Ser Thr Ser Lys Thr Tyr Val Ile Ser Arg Thr Glu Pro Ala Met					
	85		90		95
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&lt;210&gt; 5391

&lt;211&gt; 797

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5391

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&lt;210&gt; 5392

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5392

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 Asn Pro Pro Ala Ser Ala Ser  
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&lt;210&gt; 5393

&lt;211&gt; 4837

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5393

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<211> 354

<212> PRT

<213> Homo sapiens

<400> 5394

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 Phe Tyr Arg Leu Leu Arg His Pro Ser Asp Arg Met Gly Phe Pro Pro  
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 Gly Ala Ala Gln Ala Leu Val Leu Gln Val Phe Lys Thr Phe Asp His  
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 65 70 75 80  
 Ile Arg Arg Lys Glu Glu Glu Glu Ala Lys Thr Val Ser Ala Ala Ala  
 85 90 95  
 Ala Glu Lys Glu Pro Val Pro Val Pro Val Gln Glu Ile Glu Ile Asp  
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 Ser Thr Thr Glu Leu Asp Gly His Gln Glu Val Glu Lys Val Gln Pro  
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 165 170 175  
 Gly Ala Val Arg Glu Asn Tyr Thr Trp Ser Gln Asp Tyr Thr Asp Leu  
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 Glu Val Arg Val Pro Val Pro Lys His Val Val Lys Gly Lys Gln Val  
 195 200 205  
 Ser Val Ala Leu Ser Ser Ser Ser Ile Arg Val Ala Met Leu Glu Glu  
 210 215 220  
 Asn Gly Glu Arg Val Leu Met Glu Gly Lys Leu Thr His Lys Ile Asn  
 225 230 235 240  
 Thr Glu Ser Ser Leu Trp Ser Leu Glu Pro Gly Lys Cys Val Leu Val

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	260	265	270		
Glu Glu Pro	Ile Asp Ile Asp Lys Ile Asn Lys	Glu Arg Ser Met Ala			
	275	280	285		
Thr Val Asp	Glu Glu Glu Gln Ala Val Leu Asp	Arg Leu Thr Phe Asp			
	290	295	300		
Tyr His Gln	Lys Leu Gln Gly Lys Pro Gln Ser	His Glu Leu Lys Val			
	305	310	315		320
His Glu Met	Leu Lys Lys Gly Trp Asp Ala Glu Gly	Ser Pro Phe Arg			
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Gly Gln Arg	Phe Asp Pro Ala Met Phe Asn Ile	Ser Pro Gly Ala Val			
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Gln Phe					

&lt;210&gt; 5395

&lt;211&gt; 3711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5395

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&lt;210&gt; 5396

&lt;211&gt; 760

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5396

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Asn	Glu	Leu	Lys	Ala	Ser	Gly	Gly	Glu	Ile	Lys	Ile	His	Lys	Met	Glu	
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Gln	Lys	Glu	Asn	Val	Pro	Gly	Pro	Glu	Val	Cys	Ile	Thr	His	Gln		
						310				315				320		
Glu	Gly	Glu	Lys	Ile	Ser	Ala	Asn	Glu	Asn	Ser	Leu	Ala	Val	Arg	Ser	
				325						330				335		
Thr	Pro	Ala	Glu	Asp	Asp	Ser	Pro	Gly	Asp	Ser	Gln	Val	Lys	Ser	Glu	
				340					345					350		
Val	Gln	Gln	Pro	Val	His	Pro	Lys	Pro	Leu	Ser	Pro	Asp	Ser	Arg	Ala	
				355				360					365			
Ser	Ser	Leu	Ser	Glu	Ser	Ser	Pro	Pro	Lys	Ala	Met	Lys	Lys	Phe	Gln	
						375					380					
Ala	Pro	Ala	Arg	Glu	Thr	Cys	Val	Glu	Cys	Gln	Lys	Thr	Val	Tyr	Pro	
						390				395					400	
Met	Glu	Arg	Leu	Leu	Ala	Asn	Gln	Gln	Val	Phe	His	Ile	Ser	Cys	Phe	
				405					410					415		

500 505 510  
 Ala Ser Ser Gln Gln Glu Lys Glu Asp Lys Pro Ala Glu Thr Lys Lys  
 515 520 525  
 Leu Arg Ile Ala Trp Pro Pro Thr Glu Leu Gly Ser Ser Gly Ser  
 530 535 540  
 Ala Leu Glu Glu Gly Ile Lys Met Ser Lys Pro Lys Trp Pro Pro Glu  
 545 550 555 560  
 Asp Glu Ile Ser Lys Pro Glu Val Pro Glu Asp Val Asp Leu Asp Leu  
 565 570 575  
 Lys Lys Leu Arg Arg Ser Ser Ser Leu Lys Glu Arg Ser Arg Pro Phe  
 580 585 590  
 Thr Val Ala Ala Ser Phe Gln Ser Thr Ser Val Lys Ser Pro Lys Thr  
 595 600 605  
 Val Ser Pro Pro Ile Arg Lys Gly Trp Ser Met Ser Glu Gln Ser Glu  
 610 615 620  
 Glu Ser Val Gly Gly Arg Val Ala Glu Arg Lys Gln Val Glu Asn Ala  
 625 630 635 640  
 Lys Ala Ser Lys Lys Asn Gly Asn Val Gly Lys Thr Thr Trp Gln Asn  
 645 650 655  
 Lys Glu Ser Lys Gly Glu Thr Gly Lys Arg Ser Lys Glu Gly His Ser  
 660 665 670  
 Leu Glu Met Glu Asn Glu Asn Leu Val Glu Asn Gly Ala Asp Ser Asp  
 675 680 685  
 Glu Asp Asp Asn Ser Phe Leu Lys Gln Gln Ser Pro Gln Glu Pro Lys  
 690 695 700  
 Ser Leu Asn Trp Ser Ser Phe Val Asp Asn Thr Phe Ala Glu Glu Phe  
 705 710 715 720  
 Thr Thr Gln Asn Gln Lys Ser Gln Asp Val Glu Leu Trp Glu Gly Glu  
 725 730 735  
 Val Val Lys Glu Leu Ser Val Glu Glu Gln Ile Lys Arg Asn Arg Tyr  
 740 745 750  
 Tyr Asp Glu Asp Glu Asp Glu Glu  
 755 760

&lt;210&gt; 5397

&lt;211&gt; 561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5397

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 120  
 cccagaaca taagacagga gggagagatg ccatccattc agcggggcact tatgccacag  
 180  
 accagctgag ccagaccagc attccattt caccaccct tactcctcaa gatgcaaatg  
 240  
 aagctcaggg ctggcgga gctggcaggg ctgtccacag ggaggacccc cgtgtgtctc  
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 420

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 480  
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 561

<210> 5398

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5398

Met Ala Leu Gly Ser Thr Trp Thr Pro Glu His Lys Thr Gly Gly Arg  
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 20 25 30  
 Thr Ser Ile Pro Ile Ser Pro Pro Leu Thr Pro Gln Asp Ala Asn Glu  
 35 40 45  
 Ala Gln Gly Trp Ala Glu Ala Gly Arg Ala Val His Arg Glu Asp Pro  
 50 55 60  
 Arg Val Ser Leu Gly Leu Pro Arg Trp Leu Cys Pro Pro Phe Cys Leu  
 65 70 75 80  
 Gly Gly Ser Leu Arg Leu Gly Arg Ala Gln Arg Glu Gly Asp Pro Glu  
 85 90 95  
 Gly Leu Ala Asp Ser Gly Pro Pro Cys Glu Leu Arg Phe Glu Glu Glu  
 100 105 110  
 Ser Arg Pro Pro Arg Val Val Gly Glu Ser Thr Gly Arg Lys Ala Gly  
 115 120 125  
 Ile Ser Thr Glu Gly Leu Ser Ala Ser Phe Asp Leu Phe Gln Ser Phe  
 130 135 140  
 Arg Val Met Asn Gln Ile Ala Phe Met Arg  
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<210> 5399

<211> 835

<212> DNA

<213> Homo sapiens

<400> 5399

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 atgggcagta accctcattc tcagcctcag cagagcagtc cgtaccagg aggttcctat  
 180  
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 240  
 gccggaatgc agtaccctca gcagcagatg ccacctcagt atggacagca aggtgtgagt  
 300  
 ggttactgcc agcagggccca acagccatat tacagccagc agccgcagcc cccgcacctc  
 360  
 ccaccaggcg cgcagtatct gcggtccagg tcccagcaga ggtaccagcc gcagcaggac  
 420

atgtctcagg aaggctatgg aactagatct caacctcttc tggcccccg aaaacctaac  
 480  
 catgaagact tgaacttaat acagcaagaa agaccatcaa gtttaccagt aagacattat  
 540  
 tgtgtctgatt tggaaatgta atgagttaaa gacttttaga aagagctggt gtttttggtt  
 600  
 gttctacttt atattatgac atgattgaga agtttctaga cttcagggtt attttgggt  
 660  
 caatttttca aggtttacct tttaggagct ctgtagtcct ggataagtct atttcatgtg  
 720  
 tatatatctc tgttgcagag tgtagacatc agttggaagg ttttatgcgg ctggctgatt  
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 835

<210> 5400

<211> 186

<212> PRT

<213> Homo sapiens

<400> 5400

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 20 25 30  
 Met Lys Arg Pro Gln Leu Tyr Gly Met Gly Ser Asn Pro His Ser Gln  
 35 40 45  
 Pro Gln Gln Ser Ser Pro Tyr Pro Gly Gly Ser Tyr Gly Pro Pro Gly  
 50 55 60  
 Pro Gln Arg Tyr Pro Ile Gly Ile Gln Gly Arg Thr Pro Gly Ala Met  
 65 70 75 80  
 Ala Gly Met Gln Tyr Pro Gln Gln Gln Met Pro Pro Gln Tyr Gly Gln  
 85 90 95  
 Gln Gly Val Ser Gly Tyr Cys Gln Gln Gly Gln Gln Pro Tyr Tyr Ser  
 100 105 110  
 Gln Gln Pro Gln Pro Pro His Leu Pro Pro Gln Ala Gln Tyr Leu Pro  
 115 120 125  
 Ser Gln Ser Gln Gln Arg Tyr Gln Pro Gln Gln Asp Met Ser Gln Glu  
 130 135 140  
 Gly Tyr Gly Thr Arg Ser Gln Pro Pro Leu Ala Pro Gly Lys Pro Asn  
 145 150 155 160  
 His Glu Asp Leu Asn Leu Ile Gln Gln Glu Arg Pro Ser Ser Leu Pro  
 165 170 175  
 Val Arg His Tyr Cys Ala Asp Leu Glu Met  
 180 185

<210> 5401

<211> 2674

<212> DNA

<213> Homo sapiens

<400> 5401

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120  
atttcagaaa gtatggatat actcttcaga ataagaggag gccttgattt ggcttttcag  
180  
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240  
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300  
tggcctagca gtgacataaa caccattcct ggagaactga ctgatgcttc tgcttgtaag  
360  
aacatactgc gctttattca atttgagcca gaagaagata taaaaagaaa attcatgaga  
420  
aagaaggaca aaaagttatc agacatgcat caaatagtaa atatagatct tatgtctggaa  
480  
atgtcaacct ccctggcagc tgtaacgccc atcattgaaa gggaaagcgg agggacccat  
540  
tatgttaata tgactttacc tgtcgatgca gttatatctg ttgctccaga agaaacatgg  
600  
ggaaaagtgc gtaagctcct ggttgatgca attcataatc aactaactga catggaaaaa  
660  
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720  
ttaccaggga aaaaaaatct tgtaacaatt tcatatcctt caggaatacc agatggccag  
780  
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840  
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900  
aatccacata cttaccttaa tccacctaac atggagactg gtatgattta tgtggtccag  
960  
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1020  
gcttatcgat ctctgcagac tatctgctct tggttcaaac atcaggggata cacagagagg  
1080  
tccattccaa cacacagaga aattcagcag gctctagtcg atgccgggga caaaccagca  
1140  
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1200  
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1320  
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1440  
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1560  
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1680

gacgttcctt taataactta aaagacaaag catcacacaac cagcatatta taggcattgta  
 1740  
 aatacatgtg ttcttaaatg gatcttcact tggaagaaag ttttcgtcc ttctcagaag  
 1800  
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 1860  
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 1920  
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 1980  
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 2040  
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 2100  
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 2160  
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 2220  
 tgtcagggtg ttcacttgct tttattgtct gcatacattt aattgttgta agaaacttgg  
 2280  
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 2340  
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 2400  
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 2460  
 aggatgcata aggaatttgc atttttgtgc actattgtat cctcagcaac taacagaatc  
 2520  
 cagcatagag cgggcattcc agttctgaat gaatgttaga attatctgat gtttaataca  
 2580  
 gtgtatgagt acccaaaggt agtcaatggg aactatagaa tgggttttcc tgaaccgaaa  
 2640  
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 2674

&lt;210&gt; 5402

&lt;211&gt; 507

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5402

Xaa Leu Ser Lys Glu Gly Ala Pro Ala Leu Gly Pro Trp Val Thr Pro  
 1 5 10 15  
 Phe Lys Ala Arg Pro Arg Glu Phe Trp Ala Arg Cys Lys Arg Pro Cys  
 20 25 30  
 Pro Arg His Val Ala Asp Met Val Ile Ser Glu Ser Met Asp Ile Leu  
 35 40 45  
 Phe Arg Ile Arg Gly Leu Asp Leu Ala Phe Gln Leu Ala Thr Pro  
 50 55 60  
 Asn Glu Ile Phe Leu Lys Lys Ala Leu Lys His Val Leu Ser Asp Leu  
 65 70 75 80  
 Ser Thr Lys Leu Ser Ser Asn Ala Leu Val Phe Arg Ile Cys His Ser  
 85 90 95  
 Ser Val Tyr Ile Trp Pro Ser Ser Asp Ile Asn Thr Ile Pro Gly Glu

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100      105      110
Leu Thr Asp Ala Ser Ala Cys Lys Asn Ile Leu Arg Phe Ile Gln Phe
115      120      125
Glu Pro Glu Glu Asp Ile Lys Arg Lys Phe Met Arg Lys Lys Asp Lys
130      135      140
Lys Leu Ser Asp Met His Gln Ile Val Asn Ile Asp Leu Met Leu Glu
145      150      155
Met Ser Thr Ser Leu Ala Ala Val Thr Pro Ile Ile Glu Arg Glu Ser
165      170      175
Gly Gly His His Tyr Val Asn Met Thr Leu Pro Val Asp Ala Val Ile
180      185      190
Ser Val Ala Pro Glu Glu Thr Trp Gly Lys Val Arg Lys Leu Leu Val
195      200      205
Asp Ala Ile His Asn Gln Leu Thr Asp Met Glu Lys Cys Ile Leu Lys
210      215      220
Tyr Met Lys Arg Thr Ser Ile Val Val Pro Glu Pro Leu His Phe Leu
225      230      235
Leu Pro Gly Lys Lys Asn Leu Val Thr Ile Ser Tyr Pro Ser Gly Ile
245      250      255
Pro Asp Gly Gln Leu Gln Ala Tyr Arg Lys Glu Leu His Asp Leu Phe
260      265      270
Asn Leu Pro His Asp Arg Pro Tyr Phe Lys Arg Ser Asn Ala Tyr His
275      280      285
Phe Pro Asp Glu Pro Tyr Lys Asp Gly Tyr Ile Arg Asn Pro His Thr
290      295      300
Tyr Leu Asn Pro Pro Asn Met Glu Thr Gly Met Ile Tyr Val Val Gln
305      310      315
Gly Ile Tyr Gly Tyr His His Tyr Met Gln Asp Arg Ile Asp Asp Asn
325      330      335
Gly Trp Gly Cys Ala Tyr Arg Ser Leu Gln Thr Ile Cys Ser Trp Phe
340      345      350
Lys His Gln Gly Tyr Thr Glu Arg Ser Ile Pro Thr His Arg Glu Ile
355      360      365
Gln Gln Ala Leu Val Asp Ala Gly Asp Lys Pro Ala Thr Phe Val Gly
370      375      380
Ser Arg Gln Trp Ile Gly Ser Ile Glu Val Gln Leu Val Leu Asn Gln
385      390      395
Leu Ile Gly Ile Thr Ser Lys Ile Leu Phe Val Ser Gln Gly Ser Glu
405      410      415
Ile Ala Ser Gln Gly Arg Glu Leu Ala Asn His Phe Gln Ser Glu Gly
420      425      430
Thr Pro Val Met Ile Gly Gly Gly Val Leu Ala His Thr Ile Leu Gly
435      440      445
Val Ala Trp Asn Glu Ile Thr Gly Gln Ile Lys Phe Leu Ile Leu Asp
450      455      460
Pro His Tyr Thr Gly Ala Glu Asp Leu Gln Val Ile Leu Glu Lys Gly
465      470      475
Trp Cys Gly Trp Lys Gly Pro Asp Phe Trp Asn Lys Asp Ala Tyr Tyr
485      490      495
Asn Leu Cys Leu Pro Gln Arg Pro Asn Met Ile
500      505

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&lt;210&gt; 5403

&lt;211&gt; 451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5403

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 120  
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 180  
 ccaactctctc agccaggggac gcacgctggg gctntggatc cagcccccag tctcaggaag  
 240  
 gccagtctcc gggcggcctc ccccgtgcgc tctcgtcgc cgtgggctcg ggtcccatgc  
 300  
 agccggggcca ggaggccaaa atctgctgag ctctctgcgta tccttggtac cagcacacgg  
 360  
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 420  
 ccagccggaa gggggccagg cccgcaagct t  
 451

&lt;210&gt; 5404

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5404

Ala	Pro	Ser	Pro	Ser	Thr	Ala	Pro	Ala	Pro	Arg	Pro	Leu	Ala	Pro	Gly
1				5					10				15		
Cys	Ala	Arg	Pro	His	Ala	Leu	Val	Arg	Ala	Ala	Gly	Ser	Gly	Ser	Gly
			20					25				30			
Ser	Pro	Ala	Leu	Thr	Met	Ala	Pro	Ser	Ser	Leu	Gly	Ala	Leu	Gly	Pro
			35				40				45				
Trp	Val	Gly	Ala	Leu	Glu	Leu	Pro	Arg	Leu	Gln	Ala	Pro	Leu	Ser	Gln
	50					55				60					
Pro	Gly	Thr	His	Ala	Gly	Ala	Xaa	Asp	Pro	Arg	Pro	Ser	Leu	Arg	Lys
65				70				75					80		
Ala	Ser	Leu	Arg	Ala	Ala	Ser	Pro	Ala	Ala	Ser	Ser	Ser	Pro	Trp	Ala
			85					90					95		
Arg	Val	Pro	Cys	Ser	Arg	Ala	Arg	Pro	Lys	Ser	Ala	Glu	Leu	Leu	
			100				105					110			
Arg	ile	Pro	Gly	Thr	Ser	Thr	Arg	Pro	Lys	Lys	Glu	Arg	Gly	Cys	Pro
	115					120					125				
Ser	Pro	Gly	Leu	Pro	Ala	Ala	Gly	Pro	Gly	Pro	Ser	Pro	Ala	Gly	Arg
	130					135					140				
Gly	Pro	Gly	Pro	Gln	Ala										
145					150										

&lt;210&gt; 5405

&lt;211&gt; 1609

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5405

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120  
gtcattgaac cagacaaaaa cagaaaatat tgtagtgcaa aagcaaggca tctcgtggacc  
180  
aaagaccggc gtgcgatgag agtgatgtct attgaacgta agaagtggtg gaacatccgt  
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300  
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420  
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480  
ggaaaacaaa ttcacatgcc aacagattat gctgaagtta cagtggaactt tcaactgctg  
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660  
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900  
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960  
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1260  
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1320  
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1380  
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<210> 5406  
 <211> 291  
 <212> PRT  
 <213> Homo sapiens

<400> 5406  
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 20 25 30  
 Ala Gln Cys Leu Arg Asn Gly Gln Val Ile Glu Pro Asp Lys Asn Arg  
 35 40 45  
 Lys Tyr Cys Ser Ala Lys Ala Arg His Ser Trp Thr Lys Asp Arg Arg  
 50 55 60  
 Ala Met Arg Val Met Ser Ile Glu Arg Lys Lys Trp Met Asn Ile Arg  
 65 70 75 80  
 Pro Leu Pro Thr Lys Lys Gln Met Pro Leu Gln Phe Asp Leu Cys Asn  
 85 90 95  
 His Ile Ala Ser Gly Lys Lys Cys Gln Tyr Val Gly Asn Cys Ser Phe  
 100 105 110  
 Ala His Ser Pro Glu Glu Arg Glu Val Trp Thr Tyr Met Lys Glu Asn  
 115 120 125  
 Gly Ile Gln Asp Met Glu Gln Phe Tyr Glu Leu Trp Leu Lys Ser Gln  
 130 135 140  
 Lys Asn Glu Lys Ser Glu Asp Ile Ala Ser Gln Ser Asn Lys Glu Asn  
 145 150 155 160  
 Gly Lys Gln Ile His Met Pro Thr Asp Tyr Ala Glu Val Thr Val Asp  
 165 170 175  
 Phe His Cys Trp Met Cys Gly Lys Asn Cys Asn Ser Glu Lys Gln Trp  
 180 185 190  
 Gln Gly His Ile Ser Ser Glu Lys His Lys Glu Lys Val Phe His Thr  
 195 200 205  
 Glu Asp Asp Gln Tyr Cys Trp Gln His Arg Phe Pro Thr Gly Tyr Phe  
 210 215 220  
 Ser Ile Cys Asp Arg Tyr Met Asn Gly Thr Cys Pro Glu Gly Asn Ser  
 225 230 235 240  
 Cys Lys Phe Ala His Gly Asn Ala Glu Leu His Glu Trp Glu Glu Arg  
 245 250 255  
 Arg Asp Ala Leu Lys Met Lys Leu Asn Lys Ala Arg Lys Asp His Leu  
 260 265 270  
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 275 280 285  
 Asp Leu Asn  
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<210> 5407  
 <211> 2010  
 <212> DNA  
 <213> Homo sapiens

<400> 5407  
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120  
gagatgggtg tatctgaaaa ggtagtcag ctgtaggaat ggactaaca aagacctgta  
180  
ataagaatga atggagacaa gttccgtcgc cttgtgaaag cccaccagag aaattactcc  
240  
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 2010

<210> 5408

<211> 335

<212> PRT

<213> Homo sapiens

<400> 5408

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 20 25 30  
 Lys Glu Met Val Leu Ser Glu Lys Val Ser Gln Leu Met Glu Trp Thr  
 35 40 45  
 Asn Lys Arg Pro Val Ile Arg Met Asn Gly Asp Lys Phe Arg Arg Leu  
 50 55 60  
 Val Lys Ala Pro Pro Arg Asn Tyr Ser Val Ile Val Met Phe Thr Ala  
 65 70 75 80  
 Leu Gln Leu His Arg Gln Cys Val Val Cys Lys Gln Ala Asp Glu Glu  
 85 90 95  
 Phe Gln Ile Leu Ala Asn Ser Trp Arg Tyr Ser Ser Ala Phe Thr Asn  
 100 105 110  
 Arg Ile Phe Phe Ala Met Val Asp Phe Asp Glu Gly Ser Asp Val Phe  
 115 120 125  
 Gln Met Leu Asn Met Asn Ser Ala Pro Thr Phe Ile Asn Phe Pro Ala  
 130 135 140  
 Lys Gly Lys Pro Lys Arg Gly Asp Thr Tyr Glu Leu Gln Val Arg Gly  
 145 150 155 160  
 Phe Ser Ala Glu Gln Ile Ala Arg Trp Ile Ala Asp Arg Thr Asp Val  
 165 170 175  
 Asn Ile Arg Val Ile Arg Pro Pro Asn Tyr Ala Gly Pro Leu Met Leu  
 180 185 190  
 Gly Leu Leu Leu Ala Val Ile Gly Gly Leu Val Tyr Leu Arg Arg Ser  
 195 200 205  
 Asn Met Glu Phe Leu Phe Asn Lys Thr Gly Trp Ala Phe Ala Ala Leu  
 210 215 220  
 Cys Phe Val Leu Ala Met Thr Ser Gly Gln Met Trp Asn His Ile Arg  
 225 230 235 240  
 Gly Pro Pro Tyr Ala His Lys Asn Pro His Thr Gly His Val Asn Tyr  
 245 250 255  
 Ile His Gly Ser Ser Gln Ala Gln Phe Val Ala Glu Thr His Ile Val  
 260 265 270  
 Leu Leu Phe Asn Gly Gly Val Thr Leu Gly Met Val Leu Leu Cys Glu

	275		280		285	
Ala	Ala Thr Ser Asp Met Asp Ile Gly Lys Arg Lys Ile Met Cys Val					
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Ala	Gly Ile Gly Leu Val Val Leu Phe Phe Ser Trp Met Leu Ser Ile					
305		310		315		320
Phe	Arg Ser Lys Tyr His Gly Tyr Pro Tyr Ser Phe Leu Met Ser					
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&lt;210&gt; 5409

&lt;211&gt; 2019

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5409

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1200

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 2019

&lt;210&gt; 5410

&lt;211&gt; 198

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5410

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			20					25					30		
Gln	Ile	Glu	Gln	Gly	Met	Asp	Met	Val	Ile	Ser	Ser	Val	Ile	Gly	Glu
		35					40					45			
Ser	Tyr	Arg	Leu	Gln	Ser	Met	Gln	Cys	Ser	Ser	Leu	Phe	Gln	Phe	Asp
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				85				90						95	
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			100				105						110		
Asn	Gly	Lys	Val	Leu	Asn	Leu	Ser	Ser	Thr	Ser	Pro	Glu	Lys	Lys	Glu
		115				120					125				
Thr	Ile	Lys	Leu	Phe	Leu	Glu	Lys	Met	Ser	Glu	Pro	Leu	Ile	Arg	Arg
	130				135						140				
Ser	Ser	Phe	Ser	Asp	Arg	Lys	Phe	Ser	Val	Thr	Ser	Arg	Gly	Ser	Ile

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Pro Leu Leu Ala Glu Leu Pro Phe Pro Ser Val Leu Glu Ser Glu Glu
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Thr Pro Asn Gln Phe Ile
          195

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&lt;210&gt; 5411

&lt;211&gt; 2802

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5411

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&lt;210&gt; 5412

&lt;211&gt; 642

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5412

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      35              40              45
Asp Leu Cys Val Leu Phe Gly Lys Gly Asn Ser Pro Leu Leu Gln Lys
 50              55              60
Met Ile Gly Asn Ile Phe Thr Gln Gln Pro Ser Tyr Tyr Ser Asp Leu
 65              70              75              80
Asp Glu Thr Leu Pro Thr Ile Leu Gln Val Phe Ser Asn Ile Leu Gln
      85              90              95
His Cys Gly Leu Gln Gly Asp Gly Ala Asn Thr Thr Pro Gln Lys Leu
      100             105             110
Glu Glu Arg Gly Arg Leu Thr Pro Ser Asp Met Pro Leu Leu Glu Leu
      115             120             125
Lys Asp Ile Val Leu Tyr Leu Cys Asp Thr Cys Thr Thr Leu Trp Ala
      130             135             140
Phe Leu Asp Ile Phe Pro Leu Ala Cys Gln Thr Phe Gln Lys His Asp
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Phe Cys Tyr Arg Leu Ala Ser Phe Tyr Glu Ala Ala Ile Pro Glu Met
      165             170             175
Glu Ser Ala Ile Lys Lys Arg Arg Leu Glu Asp Ser Lys Leu Leu Gly
      180             185             190
Asp Leu Trp Gln Arg Leu Ser His Ser Arg Lys Lys Leu Met Glu Ile
      195             200             205
Phe His Ile Ile Leu Asn Gln Ile Cys Leu Leu Pro Ile Leu Glu Ser
      210             215             220
Ser Cys Asp Asn Ile Gln Gly Phe Ile Glu Glu Phe Leu Gln Ile Phe
 225             230             235             240
Ser Ser Leu Leu Gln Glu Lys Arg Phe Leu Arg Asp Tyr Asp Ala Leu
      245             250             255
Phe Pro Val Ala Glu Asp Ile Ser Leu Leu Gln Gln Ala Ser Ser Val
      260             265             270
Leu Asp Glu Thr Arg Thr Ala Tyr Ile Leu Gln Ala Val Glu Ser Ala
      275             280             285
Trp Glu Gly Val Asp Arg Arg Lys Ala Thr Asp Ala Lys Asp Pro Ser
      290             295             300
Val Ile Glu Glu Pro Asn Gly Glu Pro Asn Gly Val Thr Val Thr Ala
 305             310             315             320
Glu Ala Val Ser Gln Ala Ser Ser His Pro Glu Asn Ser Glu Glu Glu
      325             330             335
Glu Cys Met Gly Ala Ala Ala Ala Val Gly Pro Ala Met Cys Gly Val
      340             345             350
Glu Leu Asp Ser Leu Ile Ser Gln Val Lys Asp Leu Leu Pro Asp Leu
      355             360             365
Gly Glu Gly Phe Ile Leu Ala Cys Leu Glu Tyr Tyr His Tyr Asp Pro

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Pro Leu Leu Thr Ser Arg His Asn Val Phe Gln Asn Asp Glu Phe Asp				
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	450		455	460
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465	470		475	480
Glu Glu Val Pro Leu Gln Pro Gly Glu Ser Leu Pro Tyr His Ser Val				
	485		490	495
Tyr Tyr Glu Asp Glu Tyr Asp Asp Thr Tyr Asp Gly Asn Gln Val Gly				
	500		505	510
Ala Asn Asp Ala Asp Ser Met Thr Ser Ser Ser Ala Ala Gly His Ser				
	515		520	525
Pro Ser Gln Val Leu Arg Thr Lys Val Pro Arg Glu Gly Gln Glu Glu				
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Asp Asp Asp Asp Glu Glu Asp Asp Ala Asp Glu Glu Ala Pro Lys Pro				
545	550		555	560
Asp His Phe Val Gln Asp Pro Ala Val Leu Arg Glu Lys Ala Glu Ala				
	565		570	575
Arg Arg Met Ala Phe Leu Ala Lys Lys Gly Tyr Arg His Asp Ser Ser				
	580		585	590
Thr Ala Val Ala Gly Ser Pro Arg Gly His Gly Gln Ser Arg Glu Thr				
	595		600	605
Thr Gln Glu Arg Arg Lys Lys Glu Ala Asn Lys Ala Thr Arg Ala Asn				
	610		615	620
His Asn Arg Arg Thr Met Ala Asp Arg Lys Arg Ser Lys Gly Met Ile				
625	630		635	640
Pro Ser				

&lt;210&gt; 5413

&lt;211&gt; 1677

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5413

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&lt;210&gt; 5414

&lt;211&gt; 426

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5414

Met Ser Ala Cys Asn Ile Ser Ile Gln Gly Pro Ser Ile Tyr Asn Lys

1

5

10

15

Glu Pro Lys Asn Ile Ile Asn Pro His Glu Lys Val Gln Met Lys Ser

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      20              25              30
Ile Cys Ala Asn Ser Pro Ile Lys Ala Gln Gln Asp Gln Leu Gln Val
      35              40              45
Lys Asn Asn Ile Lys Ala Ser Leu His Asn Val Lys Ser Ser Leu Pro
      50              55              60
Leu Phe Asn Thr Lys Ser Ser Thr Ser Val Gly Gln Leu Gln Ser Pro
65      70              75              80
Thr Leu Asn Ser Pro Ile Tyr Met Gln Lys Gln Gly Lys Asn Glu His
      85              90              95
Leu Ala Phe Asn Thr Lys Ser Lys Ala Ser Thr Val Gly Ser Glu Leu
      100             105             110
Val Leu Val Ser Thr Thr Val Pro Thr Val His His Val Ser Asp Leu
      115             120             125
Glu Met Ser Ser Thr Leu Asp Cys Leu Pro Val Leu Ala Asp Trp Glu
      130             135             140
Asp Val Val Leu Leu Pro Ala Ser Gln Pro Glu Glu Asn Val Asp Cys
145      150             155             160
Thr Val Pro Ile Ser Asp Ser Asp Leu Glu Ile Ser Phe Asn Ser Gly
      165             170             175
Glu Arg Leu Met Val Leu Lys Glu Leu Glu Met Ser Ser His Glu Asn
      180             185             190
Phe Gly Asp Ile Glu Glu Thr Pro Gln Lys Ser Glu Thr Ser Lys Ser
      195             200             205
Ile Val Tyr Lys Ser Pro His Thr Thr Ile Tyr Asn Val Lys Glu Ala
      210             215             220
Lys Asp Pro Gly Ser Asp Ile Ser Ala Phe Lys Leu Pro Glu His Lys
225      230             235             240
Ser Ser Thr Phe Asn Arg Val Asn Ala Asn Met Ser His Pro Leu Val
      245             250             255
Leu Gly Lys His Pro Leu Leu Ser Gly Gly Thr Lys Arg Asn Pro Cys
      260             265             270
Ser Pro Gln Ala Phe Pro Pro Ala Lys Lys Gln Pro Phe Thr Ile His
      275             280             285
Glu Glu Lys Pro Thr Ser Ser Asp Cys Ser Pro Val Arg Ser Ser Ser
      290             295             300
Trp Arg Arg Leu Pro Ser Ile Leu Thr Ser Thr Val Asn Leu Gln Glu
305      310             315             320
Pro Trp Lys Ser Gly Lys Met Thr Pro Pro Leu Cys Lys Cys Gly Arg
      325             330             335
Arg Ser Lys Arg Leu Val Val Ser Asn Asn Gly Pro Asn His Gly Lys
      340             345             350
Val Phe Tyr Cys Cys Pro Ile Gly Lys Tyr Gln Glu Asn Arg Lys Cys
      355             360             365
Cys Gly Tyr Phe Lys Trp Glu Gln Thr Leu Gln Lys Glu Arg Ala Asn
      370             375             380
Ser Met Val Pro Ser His Ser Thr Gly Gly Leu Thr Phe Ser Ser Pro
385      390             395             400
Glu Thr Ser His Ile Cys Asp Arg Asn Leu Ser Ile Ser Thr Lys Asn
      405             410             415
Ser Leu Arg Leu Arg Pro Ser Met Arg Asn
      420             425

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&lt;210&gt; 5415

&lt;211&gt; 1493

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5415

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120  
tctccttctg aaaagctgga tccagcttgt ttgaagccct tgagctgacg ttgatccgg  
180  
cgcaggagac caacgcctgc catgctgttc cggctctcag agcactcctc accagaggag  
240  
gaagcctccc cccaccagag agcctcagga gaggggcacc atctcaagtc gaagagaccc  
300  
aaccctctgt cctacacacc accttcgctg aaagctgtgc agcgcatctg tgagtctcac  
360  
ctgcagtcta tcagcaattt gaatgagaac caggcctcag aggaggagga tgagctgggg  
420  
gagcttcggg agctgggtta tccaagagag gaagatgagg aggaagagga ggatgatgaa  
480  
gaagaggaag aagaagagga cagccaggct gaagtcttga aggtcatcag gcagtctgct  
540  
gggcaaaaga caacctgtgg ccagggtctg gaagggccct gggagcgccc accccctctg  
600  
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660  
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720  
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780  
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840  
aaggctgggtc tgtgtttgct tgtttgcccc cctttggctg ataccagag aacctgggca  
900  
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960  
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1140  
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1200  
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1260  
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1320  
ggaatgccgc ctagtttatg tccccgggtg ggcacacagc ggggggcgcg aggttttctc  
1380  
tgtccccag ctgctctgcc cctttccctt tcttccctga ctccaggcct gaaccctctc  
1440  
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1493

<210> 5416  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 5416  
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 Arg Ser Pro Arg Pro Leu Trp Phe Pro Glu Pro Gln Leu Glu Val Gly  
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 Gly Ala Cys Ser Ala Leu Ala Gln Ser Pro Ser Glu Lys Leu Asp Pro  
 35 40 45  
 Ala Cys Leu Lys Pro Leu Ser  
 50 55

<210> 5417  
 <211> 2087  
 <212> DNA  
 <213> Homo sapiens

<400> 5417  
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 aacctaccac cctcatggat aaagaagggtg gagagtata aaggagactg ttctagataa  
 120  
 catgggtcaga gaaggtctct ctgaagaggt gactttttag cagagacttg aaggagatga  
 180  
 gagaataaag catgccagca tctgagatga agagcattcc agacagaag aacagcaagc  
 240  
 gcagaggccc tgaggtggcc catatctggc gtgttcaagg agtagccata ggaggccagg  
 300  
 atggctgcaa ttgatgagga aggagggaga gagataggag atgaagtcaa tatattggtg  
 360  
 aaggaaacaga cacagttagg ggtcaagact ctcatgaggt tactcaagga accagagaaa  
 420  
 gaacgggact cagactcaga ttctcccct cttcagcaga ctgagggatg ccagcgaaga  
 480  
 gacaagcact tccgtcatgc agaaaacccc catcatcttc tcaaacctc cagcagagcg  
 540  
 gccctctctg agaagcccat cgttctcatg aagccacggg aggggggaa ggggctctg  
 600  
 gccgtgacag gtgcctctac ccctgagggc accgcccac caccctctgc agccctctgc  
 660  
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 720  
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 780  
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 960

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 1020  
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 1080  
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 1140  
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 1200  
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 1260  
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 1320  
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 1380  
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 1440  
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 1560  
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 1620  
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 1680  
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 1740  
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 1800  
 aagaactggt tccactacgc tgcccggatc tgggatgggg tgagaaagtc ctctgctctg  
 1860  
 gcagagtaca gccgcctgct ggccctgagg caaggagagg aatgtcatgc aggggacctc  
 1920  
 ctgggtccgc agtgtaactgc gaggggagcac agatgtccat ccccgctggt ggtggagagc  
 1980  
 ggcagcagcc ctgatggatg agggatcgtg gcttcccgcc ccagagacat gaggtgtcca  
 2040  
 gggccaggcc cccacacctc agttggggct gttccggggg tgactgt  
 2087

&lt;210&gt; 5418

&lt;211&gt; 528

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5418

Met Ala Ala Ile Asp Glu Glu Gly Gly Arg Glu Ile Gly Asp Glu Val  
 1 5 10 15  
 Asn Ile Leu Val Lys Glu Gln Thr Gln Leu Gly Val Lys Thr Leu Met  
 20 25 30  
 Arg Leu Leu Lys Glu Pro Glu Lys Glu Arg Asp Ser Asp Ser Asp Phe  
 35 40 45  
 Ser Pro Leu Gln Gln Thr Glu Gly Cys Gln Arg Arg Asp Lys His Phe  
 50 55 60  
 Arg His Ala Glu Asn Pro His His Pro Leu Lys Thr Ser Ser Arg Ala

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65              70              75              80
Ala Pro Leu Glu Lys Pro Ile Val Leu Met Lys Pro Arg Glu Glu Gly
      85              90              95
Lys Gly Pro Val Ala Val Thr Gly Ala Ser Thr Pro Glu Gly Thr Ala
      100              105              110
Pro Pro Pro Pro Ala Ala Pro Ala Pro Pro Lys Gly Glu Lys Glu Gly
      115              120              125
Gln Arg Pro Thr Gln Pro Val Tyr Gln Ile Gln Asn Arg Gly Met Gly
      130              135              140
Thr Ala Ala Pro Ala Ala Met Asp Pro Val Val Gly Gln Ala Lys Leu
      145              150              155
Leu Pro Pro Glu Arg Met Lys His Ser Ile Lys Leu Val Asp Asp Gln
      165              170              175
Met Asn Trp Cys Asp Ser Ala Ile Glu Tyr Leu Leu Asp Gln Thr Asp
      180              185              190
Val Leu Val Val Gly Val Leu Gly Leu Gln Gly Thr Gly Lys Ser Met
      195              200              205
Val Met Ser Leu Leu Ser Ala Asn Thr Pro Glu Glu Asp Gln Arg Thr
      210              215              220
Tyr Val Phe Arg Ala Gln Ser Ala Glu Met Lys Glu Arg Gly Gly Asn
      225              230              235
Gln Thr Ser Gly Ile Asp Phe Phe Ile Thr Gln Glu Arg Ile Val Phe
      245              250              255
Leu Asp Thr Gln Pro Ile Leu Ser Pro Ser Ile Leu Asp His Leu Ile
      260              265              270
Asn Asn Asp Arg Lys Leu Pro Pro Glu Tyr Asn Leu Pro His Thr Tyr
      275              280              285
Val Glu Met Gln Ser Leu Gln Ile Ala Ala Phe Leu Phe Thr Val Cys
      290              295              300
His Val Val Ile Val Val Gln Asp Trp Phe Thr Asp Leu Ser Leu Tyr
      305              310              315
Arg Leu Trp Asp Leu Gly Cys Lys Cys Lys Ser Asn Ser His Ser Pro
      325              330              335
Gln Thr Pro Arg Phe Leu Gln Thr Ala Glu Met Val Lys Pro Ser Thr
      340              345              350
Pro Ser Pro Ser His Glu Ser Ser Ser Ser Ser Gly Ser Asp Glu Gly
      355              360              365
Thr Glu Tyr Tyr Pro His Leu Val Phe Leu Gln Asn Lys Ala Arg Arg
      370              375              380
Glu Asp Phe Cys Pro Arg Lys Leu Arg Gln Met His Leu Met Ile Asp
      385              390              395
Gln Leu Met Ala His Ser His Leu Arg Tyr Lys Gly Thr Leu Ser Met
      405              410              415
Leu Gln Cys Asn Val Phe Pro Gly Leu Pro Pro Asp Phe Leu Asp Ser
      420              425              430
Glu Val Asn Leu Phe Leu Val Pro Phe Met Asp Ser Glu Ala Glu Ser
      435              440              445
Glu Asn Pro Pro Arg Ala Gly Pro Gly Ser Ser Pro Leu Phe Ser Leu
      450              455              460
Leu Pro Gly Tyr Arg Gly His Pro Ser Phe Gln Ser Leu Val Ser Lys
      465              470              475
Leu Arg Ser Gln Val Met Ser Met Ala Arg Pro Gln Leu Ser His Thr
      485              490              495
Ile Leu Thr Glu Lys Asn Trp Phe His Tyr Ala Ala Arg Ile Trp Asp

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	500		505		510										
Gly	Val	Arg	Lys	Ser	Ser	Ala	Leu	Ala	Glu	Tyr	Ser	Arg	Leu	Leu	Ala
	515						520					525			

<210> 5419  
 <211> 989  
 <212> DNA  
 <213> Homo sapiens

<400> 5419  
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 aagtacaggc gctactcgcg gtcatactcg cggagccggg cgcgatcccg cagccgccgt  
 120  
 taccgagaga ggcgctacgg gtccaccagg agatactacc ggtctccttc gcggtaccgg  
 180  
 tcccgggtccc gtacagggtc gcgctctcgg ggaagggtgt actcggaag ggcgtacggg  
 240  
 atcgcgcggg gacagcgcta ctacggcttt ggctgcacag tgtacccgga ggagcacagc  
 300  
 agatggaggg acagatccag gacgaggtcg cggagcagaa ccccttttgc cttaagtgaa  
 360  
 aaagatcgaa tggagctggt agaaatagca aaaaccaatg cagcgaaagc tctaggaaca  
 420  
 accaacattg acttgccagc tagtctcaga actgttcctt cagccaaaga aacaagccgt  
 480  
 ggaatagggt tatcaagtaa tgggtgcaaag cctgaaaaat catgaatgtg gtctgcagac  
 540  
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 600  
 aatgaaaaac ctaccgca aagaagcata gcttttagct ctaataatc ttagcaaaag  
 660  
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 720  
 gatcagaaaa aaagtccata tggactgtgg atacctatct aaaaagaa aactgatggc  
 780  
 taagtttgca tgaaaactgc actttattgc aagttagtgt ttctagcatt atcccatccc  
 840  
 tttgagccat tcagggttac ttgtgcattt aaaaaccaac acaaaaagat gtaataactt  
 900  
 aacactcaaa tattaacatt ttaggtttct cttgcagata tgagagatag cacagatgga  
 960  
 ccaaaggtta tgcacaggtg ggagtcctt  
 989

<210> 5420  
 <211> 174  
 <212> PRT  
 <213> Homo sapiens

<400> 5420  
 Phe Ser Ser Arg Ser Arg Arg Ser Lys Ser Arg Ser Arg Ser Arg Arg  
 1 5 10 15  
 Arg His Gln Arg Lys Tyr Arg Arg Tyr Ser Arg Ser Tyr Ser Arg Ser

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          20          25          30
Arg Ser Arg Ser Arg Ser Arg Arg Tyr Arg Glu Arg Arg Tyr Gly Phe
          35          40          45
Thr Arg Arg Tyr Tyr Arg Ser Pro Ser Arg Tyr Arg Ser Arg Ser Arg
          50          55          60
Ser Arg Ser Arg Ser Arg Gly Arg Ser Tyr Cys Gly Arg Ala Tyr Ala
          65          70          75          80
Ile Ala Arg Gly Gln Arg Tyr Tyr Gly Phe Gly Arg Thr Val Tyr Pro
          85          90          95
Glu Glu His Ser Arg Trp Arg Asp Arg Ser Arg Thr Arg Ser Arg Ser
          100          105          110
Arg Thr Pro Phe Arg Leu Ser Glu Lys Asp Arg Met Glu Leu Leu Glu
          115          120          125
Ile Ala Lys Thr Asn Ala Ala Lys Ala Leu Gly Thr Thr Asn Ile Asp
          130          135          140
Leu Pro Ala Ser Leu Arg Thr Val Pro Ser Ala Lys Glu Thr Ser Arg
          145          150          155          160
Gly Ile Gly Val Ser Ser Asn Gly Ala Lys Pro Glu Lys Ser
          165          170

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&lt;210&gt; 5421

&lt;211&gt; 1239

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5421

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nccagctgcc gctgtcgtct ttgcttcagc cgcagctgcc actggctgcc tgaggtgctc
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ttacagcctg ttccaagtgt ggcttaatcc gtctccacca ccagatcttt ctccgtggat
120
tcctctgcta agaccgctgc catgccagtg acggtaaccc gcaccacat cacaaccacc
180
acgacgtcat cttcgggcct ggggtccccc atgategtgg ggtccctctg ggcctgaca
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300
gtggctagcg tgggcgcctg gacggggctc atgggcaact ggtccatgtt cacctgggtg
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420
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540
cgggaccacg ccattcgcgc cacctctctc tcctgcacg cgtgtgtggc ttaccgcc
600
gaagtggcct ggacccgggc ccggcccggc gagatcactg gctatatggc caccgtacc
660
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720
cccaacctgt accagcacca gccggccctg gactgggtgc tggcgggtga cgccatctgc
780
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840

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 1140  
 aacctctttg ttcttgttgc ccgagttttc ttataggagt actctcttcc ccgcctttc  
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 1239

<210> 5422

<211> 276

<212> PRT

<213> Homo sapiens

<400> 5422

Met	Pro	Val	Thr	Val	Thr	Arg	Thr	Thr	Ile	Thr	Thr	Thr	Thr	Thr	Ser
1			5						10					15	
Ser	Ser	Gly	Leu	Gly	Ser	Pro	Met	Ile	Val	Gly	Ser	Pro	Arg	Ala	Leu
		20					25						30		
Thr	Gln	Pro	Leu	Gly	Leu	Leu	Arg	Leu	Leu	Gln	Leu	Val	Ser	Thr	Cys
		35					40					45			
Val	Ala	Phe	Ser	Leu	Val	Ala	Ser	Val	Gly	Ala	Trp	Thr	Gly	Ser	Met
	50					55					60				
Gly	Asn	Trp	Ser	Met	Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Val	Thr	Leu
65					70					75				80	
Ile	Ile	Leu	Ile	Val	Glu	Leu	Cys	Gly	Leu	Gln	Ala	Arg	Phe	Pro	Leu
			85						90					95	
Ser	Trp	Arg	Asn	Phe	Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe
			100					105					110		
Cys	Leu	Ser	Ala	Ser	Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu
		115					120					125			
Ser	His	Gly	Arg	Ser	Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser
	130					135					140				
Cys	Ile	Ala	Cys	Val	Ala	Tyr	Ala	Thr	Glu	Val	Ala	Trp	Thr	Arg	Ala
145					150					155					160
Arg	Pro	Gly	Glu	Ile	Thr	Gly	Tyr	Met	Ala	Thr	Val	Pro	Gly	Leu	Leu
			165						170					175	
Lys	Val	Leu	Glu	Thr	Phe	Val	Ala	Cys	Ile	Ile	Phe	Ala	Phe	Ile	Ser
		180						185					190		
Asp	Pro	Asn	Leu	Tyr	Gln	His	Gln	Pro	Ala	Leu	Glu	Trp	Cys	Val	Ala
	195					200						205			
Val	Tyr	Ala	Ile	Cys	Phe	Ile	Leu	Ala	Ala	Ile	Ala	Ile	Leu	Leu	Asn
	210					215						220			
Leu	Gly	Glu	Cys	Thr	Asn	Val	Leu	Pro	Ile	Pro	Phe	Pro	Ser	Phe	Leu
225					230					235					240
Ser	Gly	Leu	Ala	Leu	Cys	Leu	Ser	Ser	Ser	Met	Pro	Pro	Pro	Leu	Phe
			245						250					255	
Ser	Gly	Pro	Ser	Thr	Ser	Ser	Met	Arg	Ser	Met	Ala	Ala	Ser	Leu	Gly

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Ala Arg Glu Met  
275

265

270

<210> 5423  
<211> 2427  
<212> DNA  
<213> Homo sapiens

<400> 5423  
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120  
cctgagttat tctccccacc tcagaagtac cagcttttgg tgtatcatgc agattctctc  
180  
tttcatgata aggaatatcg gaatgctgtg agtaagtata ccatggcctt acagcagaag  
240  
aaagcgctaa gtaaaacttc aaaagtgaga ccttcaactg gaaattctgc atctactcca  
300  
caaagtcagt gtcttccatc tgaatttgaa gtgaaataca aaatggctga atgttatata  
360  
atgctaaaaa aagataaaga tgccattgct atacttgatg ggatcccttc aagacaaga  
420  
actcccaaaa taaacatgat gctggcaaac ctgtacaaga aggctgggtca ggagcgccct  
480  
tcagtcacca gctataagga ggtgctgagg cagtgcccat tagcccttga tgccattcta  
540  
ggcttgttgt ccttttctgt aaaaggggca gaggtggcat ccatgacaat gaatgtgatc  
600  
caaaccgtgc ctaacttgga ctggctctct gtgtggatca aagcgtatgc ttttgtgcac  
660  
actggtgaca actcaagagc aatcagtacc atctgttcac tagagaaaaa atccttattg  
720  
cgagataacg tggacctatt gggaagcttg gcagatctgt acttcagagc tggagacaat  
780  
aaaaactctg tcctcaagtt tgaacaggca cagatgttgg atccttatct gataaaagga  
840  
atggatgtat atggctacct actggcacga gaagggcggc tagaggatgt tgagaacctt  
900  
ggatgccgcc ttttcaatat ctctgatcag catgcagaac cgtgggtggt ttctggctgt  
960  
cacagcttct atagcaaacg ctactcccg gccctctatt taggagccaa ggccattcac  
1020  
ctgaacagta atagtgttca agctctgcta cttaaggag cagcacttag gaacatgggc  
1080  
agagtccaag aagcaataat ccactttcgg gaggccatac ggctcgcacc ttgtcgctta  
1140  
gattgttatg aaggctctat cgaatgttac ttagcctcca acagtattcg agaagcaatg  
1200  
gtaattggcta acaacgttta caaaactctg ggagcaaatg cacagaccct taccctttta  
1260  
gccaccgttt gtcttgaaga ccagtgaca caggagaaag ccaaaacatt attagataaa  
1320

gccctgacc aaagggcaga ttacattaag gctgtggtga aaaaagcaga actacttagc  
 1380  
 agagaacaga aatatgaaga tggaattgct ttgctgagga acgactggc taatcagagt  
 1440  
 gactgtgtcc tgcacggat cctaggagat ttcctttag ctgtcaatga gtatcaggag  
 1500  
 gcaatggacc agtatagtat agcactaagt ttggacccca atgaccagaa gtctctagag  
 1560  
 gggatgcaga agatggagaa ggaggagagt cccacggatg cactcagga ggaggatgtg  
 1620  
 gacgacatgg aagggagtgg ggaagaagg gacctggagg gcagcgacag tgaggcgcc  
 1680  
 cagtgggctg accaggagca gtgggtcggc atgagtgagg gggcggcagc tccatggccg  
 1740  
 cagtggcctg ccctgctctg agcacttccg tggactgaag gaaccgtagg agcctgctct  
 1800  
 cagaaggaca atgattcagc atgtgattgc agcaggggtc tctgccccct cgctcccaat  
 1860  
 tccatagctg gacttcattt ctaaaacaga gcttgaccaa ccttcctagt atctccatcc  
 1920  
 tcccctgctc cagccaggga ggactgaggg agtgccccga gaccacgca catgttgggg  
 1980  
 cttctggccc aaggtactt tttatataac taatttctaa atccaaaagc tcaaggaata  
 2040  
 gacagtgttc tgtgacatgg attggtttga aggagttacc caccatccca gcacgataat  
 2100  
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 2160  
 gtcattgtcc tgggctatcc agatgtccct agtaaatctt gcttctcttc gcaatgttag  
 2220  
 taatgcctta agctgacagt tgctattttg cagaacagtt ttcctctttg cttagctagt  
 2280  
 aacttgccct tgagcctggg ctgatctgag aaacaggtgt gacaagagca tgaaccagag  
 2340  
 gtgcacctgg ggcagtccc taataaaact ggtttgtaca gtcatggtgt tgggggtgatc  
 2400  
 agaatggaag cccttttcaa aataaaa  
 2427

&lt;210&gt; 5424

&lt;211&gt; 570

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5424

Met Ala Ala Ala Gly Leu His Ser Asn Val Arg Leu Leu Ser Ser Leu  
 1 5 10 15  
 Leu Leu Thr Met Ser Asn Asn Asn Pro Glu Leu Phe Ser Pro Pro Gln  
 20 25 30  
 Lys Tyr Gln Leu Leu Val Tyr His Ala Asp Ser Leu Phe His Asp Lys  
 35 40 45  
 Glu Tyr Arg Asn Ala Val Ser Lys Tyr Thr Met Ala Leu Gln Gln Lys  
 50 55 60  
 Lys Ala Leu Ser Lys Thr Ser Lys Val Arg Pro Ser Thr Gly Asn Ser

```

65          70          75          80
Ala Ser Thr Pro Gln Ser Gln Cys Leu Pro Ser Glu Ile Glu Val Lys
      85          90          95
Tyr Lys Met Ala Glu Cys Tyr Thr Met Leu Lys Gln Asp Lys Asp Ala
      100          105          110
Ile Ala Ile Leu Asp Gly Ile Pro Ser Arg Gln Arg Thr Pro Lys Ile
      115          120          125
Asn Met Met Leu Ala Asn Leu Tyr Lys Lys Ala Gly Gln Glu Arg Pro
      130          135          140
Ser Val Thr Ser Tyr Lys Glu Val Leu Arg Gln Cys Pro Leu Ala Leu
      145          150          155          160
Asp Ala Ile Leu Gly Leu Leu Ser Leu Ser Val Lys Gly Ala Glu Val
      165          170          175
Ala Ser Met Thr Met Asn Val Ile Gln Thr Val Pro Asn Leu Asp Trp
      180          185          190
Leu Ser Val Trp Ile Lys Ala Tyr Ala Phe Val His Thr Gly Asp Asn
      195          200          205
Ser Arg Ala Ile Ser Thr Ile Cys Ser Leu Glu Lys Lys Ser Leu Leu
      210          215          220
Arg Asp Asn Val Asp Leu Glu Gly Ser Leu Ala Asp Leu Tyr Phe Arg
      225          230          235          240
Ala Gly Asp Asn Lys Asn Ser Val Leu Lys Phe Glu Gln Ala Gln Met
      245          250          255
Leu Asp Pro Tyr Leu Ile Lys Gly Met Asp Val Tyr Gly Tyr Leu Leu
      260          265          270
Ala Arg Glu Gly Arg Leu Glu Asp Val Glu Asn Leu Gly Cys Arg Leu
      275          280          285
Phe Asn Ile Ser Asp Gln His Ala Glu Pro Trp Val Val Ser Gly Cys
      290          295          300
His Ser Phe Tyr Ser Lys Arg Tyr Ser Arg Ala Leu Tyr Leu Gly Ala
      305          310          315          320
Lys Ala Ile Gln Leu Asn Ser Asn Ser Val Gln Ala Leu Leu Leu Lys
      325          330          335
Gly Ala Ala Leu Arg Asn Met Gly Arg Val Gln Glu Ala Ile Ile His
      340          345          350
Phe Arg Glu Ala Ile Arg Leu Ala Pro Cys Arg Leu Asp Cys Tyr Glu
      355          360          365
Gly Leu Ile Glu Cys Tyr Leu Ala Ser Asn Ser Ile Arg Glu Ala Met
      370          375          380
Val Met Ala Asn Asn Val Tyr Lys Thr Leu Gly Ala Asn Ala Gln Thr
      385          390          395          400
Leu Thr Leu Leu Ala Thr Val Cys Leu Glu Asp Pro Val Thr Gln Glu
      405          410          415
Lys Ala Lys Thr Leu Leu Asp Lys Ala Leu Thr Gln Arg Pro Asp Tyr
      420          425          430
Ile Lys Ala Val Val Lys Lys Ala Glu Leu Leu Ser Arg Glu Gln Lys
      435          440          445
Tyr Glu Asp Gly Ile Ala Leu Leu Arg Asn Ala Leu Ala Asn Gln Ser
      450          455          460
Asp Cys Val Leu His Arg Ile Leu Gly Asp Phe Leu Val Ala Val Asn
      465          470          475          480
Glu Tyr Gln Glu Ala Met Asp Gln Tyr Ser Ile Ala Leu Ser Leu Asp
      485          490          495
Pro Asn Asp Gln Lys Ser Leu Glu Gly Met Gln Lys Met Glu Lys Glu

```

```

          500          505          510
Glu Ser Pro Thr Asp Ala Thr Gln Glu Asp Val Asp Asp Met Glu
          515          520          525
Gly Ser Gly Glu Glu Gly Asp Leu Glu Gly Ser Asp Ser Glu Ala Ala
          530          535          540
Gln Trp Ala Asp Gln Glu Gln Trp Phe Gly Met Ser Glu Gly Ala Ala
545          550          555          560
Ala Pro Trp Pro Gln Trp Pro Ala Leu Leu
          565          570

```

<210> 5425  
 <211> 639  
 <212> DNA  
 <213> Homo sapiens

```

<400> 5425
cggccgcca tgtgatcaaa cggatatacag cccaggcgcc agatgagctg tcctttgagg
60
tgaggctgtg ggaagcaga ttccagctgg gctccccaca cccctgctc cttctgacct
120
ttctcttccc accgccttc tcccagggtg gagacattgt etcggtgac gacatgccac
180
ccacagagga tcggagctgg tggcggggca agcagagctt ccaggtcggg ttcttcccca
240
gtgagtgtgt ggaactcttc acagagcggc cagggtcggg cctgaaggcg gatgccgatg
300
gccccccatg tggcatcccg gctccccagg gtatctctgc tctgacctca gctgtgccac
360
ggcctcgtgg gaagctggcc ggctctctcc gcaccttcac gcgtcccgcc ccttctcggc
420
agcggctgcg gcagcgggga atcctgcgac agagggtgtt tggctgcgat cttggcgagc
480
acctcagcaa ctcaggccag gatgtgcccc gtgctgcgct gctgctccga gttcattgag
540
gccnacgggg tggtggatgg gatctaccgg ctctcaggcg tgtcttccaa catccagagg
600
cttcggcacg agtttgacag tgagaggata cggagctg
639

```

<210> 5426  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

```

<400> 5426
Pro Gln Leu Cys His Gly Leu Val Gly Ser Trp Pro Ala Cys Ser Ala
1          5          10          15
Pro Ser Cys Ala Pro Ala Leu Leu Gly Ser Gly Cys Gly Ser Gly Glu
20          25          30
Ser Cys Asp Arg Gly Cys Leu Ala Ala Ile Leu Ala Ser Thr Ser Ala
35          40          45
Thr Gln Ala Arg Met Cys Pro Val Leu Arg Cys Cys Ser Glu Phe Ile
50          55          60
Glu Ala Xaa Gly Val Val Asp Gly Ile Tyr Arg Leu Ser Gly Val Ser

```

```

65          70          75          80
Ser Asn Ile Gln Arg Leu Arg His Glu Phe Asp Ser Glu Arg Ile Pro
      85          90          95
Glu Leu

```

&lt;210&gt; 5427

&lt;211&gt; 366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5427

```

tgatcactgt attgcactcc agtctgggca acagagcaag actctgtcat aaacaaacca
60
acaaacaaat caaaaattct tgttgagtac ctgctacatg ctaagtgtc ctctagggtgc
120
tgaggatata tcagaggggca aaatggatac agatactctg aaaaaacgtg cattctagct
180
gggattgggt cctccacact gtgtccaaaa ggtatgttgg ggttgctgaa gtatagataaa
240
tggtattggc agcaggaaca gcatttatgg aacagagggg aagacacatt caaggaatga
300
aacatcgtct ggctggatca tgaaatgcaa ggcagatatg gcacaggagg cagacaaagg
360
gttgaa
366

```

&lt;210&gt; 5428

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5428

```

Met Phe His Ser Leu Asn Val Ser Ser Pro Leu Phe His Lys Cys Cys
  1          5          10          15
Ser Cys Cys Gln Tyr Gln Phe Ile Tyr Phe Ser Asn Pro Asn Ile Pro
      20          25          30
Phe Gly His Ser Val Glu Asp Pro Ile Pro Ala Arg Met His Val Phe
      35          40          45
Ser Glu Tyr Leu Tyr Pro Phe Cys Pro Leu Met Tyr Pro Gln His Leu
      50          55          60
Glu Glu His Leu Ala Cys Ser Arg Tyr Ser Thr Arg Ile Phe Asp Leu
      65          70          75          80
Phe Val Gly Leu Phe Met Thr Glu Ser Cys Ser Val Ala Gln Thr Gly
      85          90          95
Val Gln Tyr Ser Asp
      100

```

&lt;210&gt; 5429

&lt;211&gt; 612

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5429

ccggcggggc gcaaggctcc gggccagcat gggggcttcg tggtgactgt caagcaagag  
 60  
 cgcgcgagg gtccacgcgc gggcgagaag gggccccacg aggaggaggt gagagtccct  
 120  
 gcgctgagct gggggaggcc ccgggctccc gccccagcct cgaagccccg cccagggtg  
 180  
 gatttgaatt gtttgtggct ccgcccacag cccattttcc tctggaagct gagaccccg  
 240  
 ccggtgccag ctgccacgcc cctgacaggt cctctgccac tctaagtcca ggccccgccc  
 300  
 accgcacaat gccagctctg cccactctaa ggtcccgccc actteacact cttggggggc  
 360  
 gcaccctccc cttggtcctg tgggcccgtt ctcacgaga aaaccacgcc caccaagcag  
 420  
 agggcacgcc cacaaccgaa gtaaacgcca accctgtact caaacctcgg cccatagttc  
 480  
 ctcagatccc ctcaccctg gccagggatc cctctaacc accgtgtccc gactgtgac  
 540  
 cggggccctac ctccatcttt tccgggttct tctcccagc tagggcccg ccccatcccc  
 600  
 gcccatacgc gt  
 612

&lt;210&gt; 5430

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5430

Pro	Ala	Gly	Gly	Lys	Ala	Pro	Gly	Gln	His	Gly	Gly	Phe	Val	Val	Thr
1				5				10					15		
Val	Lys	Gln	Glu	Arg	Gly	Glu	Gly	Pro	Arg	Ala	Gly	Glu	Lys	Gly	Ser
		20						25				30			
His	Glu	Glu	Glu	Val	Arg	Val	Pro	Ala	Leu	Ser	Trp	Gly	Arg	Pro	Arg
		35					40					45			
Ala	Pro	Ala	Pro	Ala	Ser	Lys	Pro	Arg	Pro	Arg	Leu	Asp	Leu	Asn	Cys
		50				55					60				
Leu	Trp	Leu	Arg	Pro	Gln	Pro	Ile	Phe	Leu	Trp	Lys	Leu	Arg	Pro	Arg
65				70					75					80	
Pro	Val	Pro	Ala	Ala	Thr	Pro	Leu	Thr	Gly	Pro	Leu	Pro	Leu		
				85					90						

&lt;210&gt; 5431

&lt;211&gt; 3005

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5431

nngcacgatg tcattccagca gctgccccca ccacattaca ggaccttgga gtacctgctg  
 60  
 aggcacctgg ccgcatggc gagacacagt gccaacacca gcattgatgc ccgcaacctg  
 120  
 gccattgtct gggcacccaa cctgctacgg tccatggagc tggagtgcgt gggaatgggt  
 180

ggcgcgggcg cgttccggga agttcgggtg cagtcggtgg tggtagagtt tctgctcacc  
240  
catgtggagc tctgtttcag cgacaccttc acctccgccc gcctcgaccc tgcaggccgc  
300  
tgccctgtcc ccaggcccaa gtcccttgcc ggagagtgcc cctccaccgc cctgctgacg  
360  
ctggaggaag cccaggcacg caccaggggc cggctgggga cggccacgga gcccaact  
420  
cccaaggccc cggcctcacc tgcgaaagg aggaaggggg agagagggga gaagcagcgg  
480  
aagccagggg gcagcagctg gaagacgttc ttgactggtg gccggggccc cagtgtccct  
540  
cgaaagaagc cctgtccctg gctggggggc acccgtgccc caccgcagcc ttcaggcagc  
600  
agacccgaca ccgtcacact gagatctgcc aagagcgagg agtctctgtc atcgaggcc  
660  
agcggggctg gcctccagag gctgcacagg ctgcggcgac ccaactccag cagcgacgct  
720  
ttccctgtgg gcccagcacc tgctggctcc tgcgagagcc tgcctctgtc ctctctctcc  
780  
gagtcctctc cctctgagtc ctctctctcc tctctgagtc cctcagcagc tggggtgggg  
840  
gcactctctg ggtctccctc acaccgtacc tcagcctggc tagatgatgg tgatgagctg  
900  
gaattcagcc caccgcgtg cctggaggga ctcggggggc tggactttga tcccttaacc  
960  
ttccgctgca gcagccccc cccaggggat cccgcacctc ccgccagccc agcacccccc  
1020  
gcccctgcct ctgccttccc acccagggtg acccccccag ccatctgcgc cggggggccc  
1080  
accagccccc cctcgctgc tgcctagac atctcagagc cctggctgt atcagtgcc  
1140  
cccgctgtcc tagaactgct ggggggtggg ggagcacctg cctcagccac cccaacacca  
1200  
gctctcagcc ccggccggag cctgcgcccc catctcacc cctgtgtgt gcgaggagcc  
1260  
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1320  
ggcccactcg gtctgatat ggagtcacca ctgccacccc ctccccgtc tctcctgcgc  
1380  
cctgggggtg ccccaacccc gcccccctaa aaccagcac gcctcatggc cctggccctg  
1440  
gctgagcggg ctcagcaggt ggccgagcaa cagagccagc aggagtggtg gggcacccca  
1500  
cctgtctccc aatccccctt ccacgcctcg ctgtctctgg aggtggggcg ggagccctg  
1560  
gggacctcag ggagtgggcc acctcccaac tccctagcac acccgggtgc ctgggtcccg  
1620  
ggacccccc cctacttacc aaggcaacaa agtggatggga gcctgctgag gagccagcgg  
1680  
ccatggggga cctcaaggag gggactccga ggcctgccc aggtcagtg gcagctcagg  
1740  
gcaggtggcg ggggcaggga tgcgccagag gcagcagccc agtccccatg ttctgtcccc  
1800

tcacaggttc ctacccccgg cttcttctcc ccagccccca gggagtgctt gccacccttc  
 1860  
 ctctgggttc ccaagccagg cttgtacccc ctggggcccc catccttcca gccaggttc  
 1920  
 ccagccccga tctggaggag ctctctgggc cccctgcac cactcgacag gggagagAAC  
 1980  
 ctgtactatg agatcggggc aagtgagggg tccccctatt ctggccccac ccgctcctgg  
 2040  
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 2100  
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 2160  
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 2220  
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 2460  
 gggggcgagc tcacccgagg gtccttgtag agaaatggag ggcaaagagg ggggggggct  
 2520  
 ggtccccccac ccccttacc cactccagc tggtcctctc actctgaggg ccagaccga  
 2580  
 agctactgct gagcaccagc tgggaggggg cgtccttctc tcccttcacc ctcaactgag  
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 2760  
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 2820  
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 2880  
 gtctgacct gtgcacgggg atggggggac aactcctacc cttcttctcc cacatgcccc  
 2940  
 actaaaccat ctgacaacat taatgaataa aatggtgaaa atgtgaaaaa aaaaaaaaaa  
 3000  
 aaaaaa  
 3005

&lt;210&gt; 5432

&lt;211&gt; 863

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5432

Xaa His Asp Val Ile Gln Gln Leu Pro Pro His Tyr Arg Thr Leu  
 1 5 10 15  
 Glu Tyr Leu Leu Arg His Leu Ala Arg Met Ala Arg His Ser Ala Asn  
 20 25 30  
 Thr Ser Met His Ala Arg Asn Leu Ala Ile Val Trp Ala Pro Asn Leu

```

      35              40              45
Leu Arg Ser Met Glu Leu Glu Ser Val Gly Met Gly Gly Ala Ala Ala
50              55              60
Phe Arg Glu Val Arg Val Gln Ser Val Val Val Glu Phe Leu Leu Thr
65              70              75              80
His Val Asp Val Leu Phe Ser Asp Thr Phe Thr Ser Ala Gly Leu Asp
      85              90              95
Pro Ala Gly Arg Cys Leu Leu Pro Arg Pro Lys Ser Leu Ala Gly Ser
100              105              110
Cys Pro Ser Thr Arg Leu Leu Thr Leu Glu Glu Ala Gln Ala Arg Thr
115              120              125
Gln Gly Arg Leu Gly Thr Pro Thr Glu Pro Thr Thr Pro Lys Ala Pro
130              135              140
Ala Ser Pro Ala Glu Arg Arg Lys Gly Glu Arg Gly Glu Lys Gln Arg
145              150              155              160
Lys Pro Gly Gly Ser Ser Trp Lys Thr Phe Phe Ala Leu Gly Arg Gly
      165              170              175
Pro Ser Val Pro Arg Lys Lys Pro Leu Pro Trp Leu Gly Gly Thr Arg
180              185              190
Ala Pro Pro Gln Pro Ser Gly Ser Arg Pro Asp Thr Val Thr Leu Arg
195              200              205
Ser Ala Lys Ser Glu Glu Ser Leu Ser Ser Gln Ala Ser Gly Ala Gly
210              215              220
Leu Gln Arg Leu His Arg Leu Arg Arg Pro His Ser Ser Ser Asp Ala
225              230              235              240
Phe Pro Val Gly Pro Ala Pro Ala Gly Ser Cys Glu Ser Leu Ser Ser
      245              250              255
Ser Ser Ser Ser Glu Ser Ser Ser Ser Glu Ser Ser Ser Ser Ser
260              265              270
Glu Ser Ser Ala Ala Gly Leu Gly Ala Leu Ser Gly Ser Pro Ser His
275              280              285
Arg Thr Ser Ala Trp Leu Asp Asp Gly Asp Glu Leu Asp Phe Ser Pro
290              295              300
Pro Arg Cys Leu Glu Gly Leu Arg Gly Leu Asp Phe Asp Pro Leu Thr
305              310              315              320
Phe Arg Cys Ser Ser Pro Thr Pro Gly Asp Pro Ala Pro Pro Ala Ser
      325              330              335
Pro Ala Pro Pro Ala Pro Ala Ser Ala Phe Pro Pro Arg Val Thr Pro
340              345              350
Gln Ala Ile Ser Pro Arg Gly Pro Thr Ser Pro Ala Ser Pro Ala Ala
355              360              365
Leu Asp Ile Ser Glu Pro Leu Ala Val Ser Val Pro Pro Ala Val Leu
370              375              380
Glu Leu Leu Gly Ala Gly Gly Ala Pro Ala Ser Ala Thr Pro Thr Pro
385              390              395              400
Ala Leu Ser Pro Gly Arg Ser Leu Arg Pro His Leu Ile Pro Leu Leu
      405              410              415
Leu Arg Gly Ala Glu Ala Pro Leu Thr Asp Ala Cys Gln Gln Glu Met
420              425              430
Cys Ser Lys Leu Arg Gly Ala Gln Gly Pro Leu Gly Pro Asp Met Glu
435              440              445
Ser Pro Leu Pro Pro Pro Pro Leu Ser Leu Leu Arg Pro Gly Gly Ala
450              455              460
Pro Pro Pro Pro Pro Lys Asn Pro Ala Arg Leu Met Ala Leu Ala Leu

```

465											470											475											480
Ala	Glu	Arg	Ala	Gln	Gln	Val	Ala	Glu	Gln	Gln	Ser	Gln	Gln	Ser	Gln	Gln	Gln	Gln	Cys														
				485					490					495					500														
Gly	Gly	Thr	Pro	Pro	Ala	Ser	Gln	Ser	Pro	Phe	His	Arg	Ser	Leu	Ser	Leu	Ser																
				505					505					510					515														
Leu	Glu	Val	Gly	Gly	Glu	Pro	Leu	Gly	Thr	Ser	Gly	Ser	Gly	Pro	Gly	Pro	Pro	Pro	Pro														
				520					525					530					535														
Pro	Asn	Ser	Leu	Ala	His	Pro	Gly	Ala	Trp	Val	Pro	Gly	Pro	Pro	Pro	Pro	Pro	Pro	Pro														
				540					545					550					555														
Tyr	Leu	Pro	Arg	Gln	Gln	Ser	Asp	Gly	Ser	Leu	Leu	Arg	Ser	Gln	Arg	Gln	Arg	Gln	Arg														
				565					570					575					580														
Pro	Met	Gly	Thr	Ser	Arg	Arg	Gly	Leu	Arg	Gly	Pro	Ala	Gln	Val	Ser																		
				585					590					595					600														
Ala	Gln	Leu	Arg	Ala	Gly	Gly	Gly	Gly	Arg	Asp	Ala	Pro	Glu	Ala	Ala																		
				605					610					615					620														
Ala	Gln	Ser	Pro	Cys	Ser	Val	Pro	Ser	Gln	Val	Pro	Thr	Pro	Gly	Phe																		
				625					630					635					640														
Phe	Ser	Pro	Ala	Pro	Arg	Glu	Cys	Leu	Pro	Pro	Phe	Leu	Gly	Val	Pro																		
				645					650					655					660														
Lys	Pro	Gly	Leu	Tyr	Pro	Leu	Gly	Pro	Pro	Ser	Phe	Gln	Pro	Ser	Ser																		
				665					670					675					680														
Pro	Ala	Pro	Val	Trp	Arg	Ser	Ser	Leu	Gly	Pro	Pro	Ala	Pro	Leu	Asp																		
				685					690					695					700														
Arg	Gly	Glu	Asn	Leu	Tyr	Tyr	Glu	Ile	Gly	Ala	Ser	Glu	Gly	Ser	Pro																		
				705					710					715					720														
Tyr	Ser	Gly	Pro	Thr	Arg	Ser	Trp	Ser	Pro	Phe	Arg	Ser	Met	Pro	Pro																		
				725					730					735					740														
Asp	Arg	Leu	Asn	Ala	Ser	Tyr	Gly	Met	Leu	Gly	Gln	Ser	Pro	Pro	Leu																		
				745					750					755					760														
His	Arg	Ser	Pro	Asp	Phe	Leu	Ser	Tyr	Pro	Pro	Ala	Pro	Ser	Cys																			
				765					770					775					780														
Phe	Pro	Pro	Asp	His	Leu	Gly	Tyr	Ser	Ala	Pro	Gln	His	Pro	Ala	Arg																		
				785					790					795					800														
Arg	Pro	Thr	Pro	Pro	Glu	Pro	Leu	Tyr	Val	Asn	Leu	Ala	Leu	Gly	Pro																		
				805					810					815					820														
Arg	Gly	Pro	Ser	Pro	Ala	Ser	Ser	Ser	Ser	Ser	Ser	Pro	Pro	Ala	His																		
				825					830					835					840														
Pro	Arg	Ser	Arg	Ser	Asp	Pro	Gly	Pro	Pro	Val	Pro	Arg	Leu	Pro	Gln																		
				845					850					855					860														
Lys	Gln	Arg	Ala	Pro	Trp	Gly	Pro	Arg	Thr	Pro	His	Arg	Val	Pro	Gly																		
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<211> 385

<212> DNA

<213> Homo sapiens

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 Leu Gln Ser Ser Arg Ser Asn Pro Ser Ile Gln Ala Thr Leu Asn Lys  
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 240

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<211> 119

<212> PRT

<213> Homo sapiens

<400> 5436

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Lys	Asn	Asn	His	Ile	Arg	Ser	Cys	Arg	Ala	Val	Leu	His	Arg	Ser	Asp
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Asn	Arg	Asn	His	Glu	Pro	Gly	Arg	Glu	Met	Gly	Leu	Glu	Lys	Gly	Glu
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Glu	Asn	Trp	Met	Ser	Asp	Ile	Ser	Glu	Thr	Gln	Asp	Pro	Phe	Leu	Gln
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<212> DNA

<213> Homo sapiens

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&lt;210&gt; 5438

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5438

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Phe	Glu	Phe	Arg	Ser	Leu	Leu	His	Ser	Gln	Leu	Ala	Thr	Met	Phe	Phe						
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&lt;210&gt; 5439

&lt;211&gt; 4234

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5439

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<211> 461

<212> PRT

<213> Homo sapiens

<400> 5440

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Thr	Leu	Val	His	Gln	Ala	Pro	Ala	Arg	Ile	Leu	His	Lys	Lys	His	Thr
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Lys	Lys	Met	Asp	Lys	Thr	Ala	Lys	Leu	Asp	Leu	Leu	Met	Gln	Lys	Ile
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Lys	Asp	Phe	Tyr	Leu	Tyr	Tyr	Phe	Leu	Met	Gln	Tyr	Pro	Gly	Arg	Ser
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Gln	Lys	Gln	Arg	Leu	Arg	Asn	Leu	Glu	Gln	Phe	Ala	Arg	Leu	Glu	Asp
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Cys	Val	Leu	Leu	Ala	Thr	Asp	Val	Ala	Ala	Arg	Gly	Leu	Asp	Ile	Pro
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Lys	Val	Gln	His	Val	Ile	His	Tyr	Gln	Val	Pro	Arg	Thr	Ser	Glu	Ile
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Tyr	Val	His	Arg	Ser	Gly	Arg	Thr	Ala	Arg	Ala	Thr	Asn	Glu	Gly	Leu
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Thr Lys Tyr Met Asp Val Val Lys Glu Arg Ile Arg Leu Ala Arg Gln				
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Met Tyr Lys Gly Gly Lys Ala Asp Gln Gln Glu Glu Arg Arg Arg Gln				
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&lt;210&gt; 5441

&lt;211&gt; 1635

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5441

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 1080  
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 1140  
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 1200  
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 1620  
 aaaaaaaaaa aaaaa  
 1635

&lt;210&gt; 5442

&lt;211&gt; 250

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5442

Met Ser Ile Phe Thr Pro Thr Asn Gln Ile Arg Leu Thr Asn Val Ala  
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 20 25 30  
 Lys Asn Lys Val Val Gly Trp Arg Ser Gly Val Glu Lys Asp Leu Asp  
 35 40 45  
 Glu Val Leu Gln Thr His Ser Val Phe Val Asn Val Ser Lys Gly Gln  
 50 55 60  
 Val Ala Lys Lys Glu Asp Leu Ile Ser Ala Phe Gly Thr Asp Asp Gln  
 65 70 75 80  
 Thr Glu Ile Cys Lys Gln Ile Leu Thr Lys Gly Glu Val Gln Val Ser  
 85 90 95  
 Asp Lys Glu Arg His Thr Gln Leu Glu Gln Met Phe Arg Asp Ile Ala  
 100 105 110  
 Thr Ile Val Ala Asp Lys Cys Val Asn Pro Glu Thr Lys Arg Pro Tyr  
 115 120 125  
 Thr Val Ile Leu Ile Glu Arg Ala Met Lys Asp Ile His Tyr Ser Val

130	135	140
Lys Thr Asn Lys Ser Thr Lys Gln Gln Ala Leu Glu Val Ile Lys Gln		
145	150	155
Leu Lys Glu Lys Met Lys Ile Glu Arg Ala His Met Arg Leu Arg Phe		160
	165	170
Ile Leu Pro Val Asn Glu Gly Lys Lys Leu Lys Glu Lys Leu Lys Pro		175
	180	185
Leu Ile Lys Val Ile Glu Ser Glu Asp Tyr Gly Gln Gln Leu Glu Ile		190
	195	200
Val Cys Leu Ile Asp Pro Gly Cys Phe Arg Glu Ile Asp Glu Leu Ile		205
	210	215
Lys Lys Glu Thr Lys Gly Lys Gly Ser Leu Glu Val Leu Asn Leu Lys		220
225	230	235
Asp Val Glu Glu Gly Asp Glu Lys Phe Glu		240
	245	250

&lt;210&gt; 5443

&lt;211&gt; 2021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5443

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240  
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300  
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360  
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480  
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540  
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660  
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720  
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780  
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960

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 1080  
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 1920  
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 1980  
 aataaacagc cttgtataga gaaaaaaaaa aaaaaaaaaa a  
 2021

&lt;210&gt; 5444

&lt;211&gt; 438

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5444

Leu	Glu	Glu	Val	Pro	Leu	Glu	Val	Leu	Arg	Gln	Arg	Glu	Ser	Lys	Trp
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Leu	Asp	Met	Leu	Asn	Asn	Trp	Asp	Lys	Trp	Met	Ala	Lys	Lys	His	Lys
			20				25						30		
Lys	Ile	Arg	Leu	Arg	Cys	Gln	Lys	Gly	Ile	Pro	Pro	Ser	Leu	Arg	Gly
		35				40						45			
Arg	Ala	Trp	Gln	Tyr	Leu	Ser	Gly	Gly	Lys	Val	Lys	Leu	Gln	Gln	Asn
	50				55					60					
Pro	Gly	Lys	Phe	Asp	Glu	Leu	Asp	Met	Ser	Pro	Gly	Asp	Pro	Lys	Trp
65				70					75				80		
Leu	Asp	Val	Ile	Glu	Arg	Asp	Leu	His	Arg	Gln	Phe	Pro	Phe	His	Glu

					85					90					95				
Met	Phe	Val	Ser	Arg	Gly	Gly	His	Gly	Gln	Gln	Asp	Leu	Phe	Arg	Val				
					100														
Leu	Lys	Ala	Tyr	Thr	Leu	Tyr	Arg	Pro	Glu	Glu	Gly	Tyr	Cys	Gln	Ala				
					115														
Gln	Ala	Pro	Ile	Ala	Ala	Val	Leu	Leu	Met	His	Met	Pro	Ala	Glu	Gln				
					130														
Ala	Phe	Trp	Cys	Leu	Val	Gln	Ile	Cys	Glu	Lys	Tyr	Leu	Pro	Gly	Tyr				
145					150														
Tyr	Ser	Glu	Lys	Leu	Glu	Ala	Ile	Gln	Leu	Asp	Gly	Glu	Ile	Leu	Phe				
					165														
Ser	Leu	Leu	Gln	Lys	Val	Ser	Pro	Val	Ala	His	Lys	His	Leu	Ser	Arg				
					180														
Gln	Lys	Ile	Asp	Pro	Leu	Leu	Tyr	Met	Thr	Glu	Trp	Phe	Met	Cys	Ala				
					195														
Phe	Ser	Arg	Thr	Leu	Pro	Trp	Ser	Ser	Val	Leu	Arg	Val	Trp	Asp	Met				
210					215														
Phe	Phe	Cys	Glu	Gly	Val	Lys	Ile	Ile	Phe	Arg	Val	Gly	Leu	Val	Leu				
225					230														
Leu	Lys	His	Ala	Leu	Gly	Ser	Pro	Glu	Lys	Val	Lys	Ala	Cys	Gln	Gly				
					245														
Gln	Tyr	Glu	Thr	Ile	Glu	Arg	Leu	Arg	Ser	Leu	Ser	Pro	Lys	Ile	Met				
					260														
Gln	Glu	Ala	Phe	Leu	Val	Gln	Glu	Val	Val	Glu	Leu	Pro	Val	Thr	Glu				
					275														
Arg	Gln	Ile	Glu	Arg	Glu	His	Leu	Ile	Gln	Leu	Arg	Arg	Trp	Gln	Glu				
					290														
Thr	Arg	Gly	Glu	Leu	Gln	Cys	Arg	Ser	Pro	Pro	Arg	Leu	His	Gly	Ala				
305					310														
Lys	Ala	Ile	Leu	Asp	Ala	Glu	Pro	Gly	Pro	Arg	Pro	Ala	Leu	Gln	Pro				
					325														
Ser	Pro	Ser	Ile	Arg	Leu	Pro	Leu	Asp	Ala	Pro	Leu	Pro	Gly	Ser	Lys				
					340														
Ala	Lys	Pro	Lys	Pro	Pro	Lys	Gln	Ala	Gln	Lys	Glu	Gln	Arg	Lys	Gln				
					355														
Met	Lys	Gly	Arg	Gly	Gln	Leu	Glu	Lys	Pro	Pro	Ala	Pro	Asn	Gln	Ala				
					370														
Met	Val	Val	Ala	Ala	Ala	Gly	Asp	Ala	Cys	Pro	Pro	Gln	His	Val	Pro				
385					390														
Pro	Lys	Asp	Ser	Ala															

&lt;210&gt; 5445

&lt;211&gt; 1187

<212> DNA

<213> Homo sapiens

<400> 5445

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 180  
 cgattttcca cgatgagttg attcgtaatt ccattttatgt gctagttttt agaattttcc  
 240  
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 300  
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 360  
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 420  
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 900  
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 960  
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 1080  
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 1187

&lt;210&gt; 5446

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5446

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 Glu Ser Lys His Thr Thr Cys Ala Lys Val Lys Trp Pro Gln Pro Pro  
 20 25 30  
 Arg Lys Thr Gly Trp Arg Phe Leu Arg Arg Ser Thr His Ser Arg His  
 35 40 45  
 Gly Thr Gln Trp Phe His Pro Gln Val Cys Ser Asn Arg His His Ser  
 50 55 60  
 Pro Arg Pro His Ala Asp Ser Asp Thr Arg Ala His Ser Pro Arg Ser

65		70		75		80									
His	Ala	Asp	Ser	Asp	Met	Arg	Ala	His	Ser	Leu	Ser	His	Asp	Ser	Gln
				85					90					95	
Thr	Val	Glu	Thr	Arg	Gln	Val	Gly	Leu	Gly	Cys					
				100				105							

&lt;210&gt; 5447

&lt;211&gt; 1444

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5447

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180
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240
aagaaaaaga agactattgt gactgatgtt ttccaggggt ccatgaggat cttcactaaa
300
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360
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420
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480
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540
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600
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660
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900
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960
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1020
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1080
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1140
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1200
atgtgtgtaa cttatgtctt gagtatctgg gagtagttga agaacagata attccttcca
1260

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aacatcaagc cttgggattc ttggagcaag cagaaagcca gtaacttcgc tctgttagag  
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 1440  
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 1444

<210> 5448  
 <211> 189  
 <212> PRT  
 <213> Homo sapiens

<400> 5448  
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 Ile Thr Lys Gln Gly Asp Gly Val Asp Phe Leu Ser Trp Phe Leu Asn  
 20 25 30  
 Ala Leu His Ser Ala Leu Gly Gly Thr Lys Lys Lys Lys Thr Ile  
 35 40 45  
 Val Thr Asp Val Phe Gln Gly Ser Met Arg Ile Phe Thr Lys Lys Leu  
 50 55 60  
 Pro His Pro Asp Leu Pro Ala Glu Glu Lys Glu Gln Leu Leu His Asn  
 65 70 75 80  
 Asp Glu Tyr Gln Glu Thr Met Val Glu Ser Thr Phe Met Tyr Leu Thr  
 85 90 95  
 Leu Asp Leu Pro Thr Ala Pro Leu Tyr Lys Asp Glu Lys Glu Gln Leu  
 100 105 110  
 Ile Ile Pro Gln Val Pro Leu Phe Asn Ile Leu Ala Lys Phe Asn Gly  
 115 120 125  
 Ile Thr Glu Lys Glu Tyr Lys Thr Tyr Lys Glu Asn Phe Leu Lys Arg  
 130 135 140  
 Phe Gln Leu Thr Lys Leu Pro Pro Tyr Leu Ile Phe Cys Ile Lys Arg  
 145 150 155 160  
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 Phe Pro Tyr Tyr Lys Cys Gly Ser Glu Arg Ile Leu Val  
 180 185

<210> 5449  
 <211> 1359  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
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 240

gctgccttcc ttttcacggt ctgccatgtg gggattnttg tccaggactg gttcacagac  
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 1320  
 gcaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1359

&lt;210&gt; 5450

&lt;211&gt; 293

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5450

Ser Pro Glu Glu Asp Gln Arg Thr Tyr Val Phe Arg Ala Gln Ser Ala  
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 Glu Met Lys Glu Arg Gly Gly Asn Gln Thr Ser Gly Ile Asp Phe Phe  
 20 25 30  
 Ile Thr Gln Glu Arg Ile Val Phe Leu Asp Thr Gln Pro Ile Leu Ser  
 35 40 45  
 Pro Ser Ile Leu Asp His Leu Ile Asn Asn Asp Arg Lys Leu Pro Pro  
 50 55 60  
 Glu Tyr Asn Leu Pro His Thr Tyr Val Glu Met Gln Ser Leu Gln Ile

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65          70          75          80
Ala Ala Phe Leu Phe Thr Val Cys His Val Gly Ile Xaa Val Gln Asp
85          90          95
Trp Phe Thr Asp Leu Ser Leu Tyr Arg Phe Leu Gln Thr Ala Glu Met
100        105        110
Val Lys Pro Ser Thr Pro Ser Pro Ser His Glu Ser Ser Ser Ser
115        120        125
Gly Ser Asp Glu Gly Thr Glu Tyr Tyr Pro His Leu Val Phe Phe Gln
130        135        140
Asn Lys Ala Arg Arg Glu Asp Phe Cys Pro Arg Lys Leu Arg Gln Met
145        150        155
His Leu Met Ile Asp Gln Leu Met Ala His Ser His Leu Arg Tyr Lys
165        170        175
Gly Thr Leu Ser Met Leu Gln Cys Asn Val Phe Pro Gly Leu Pro Pro
180        185        190
Asp Phe Leu Asp Ser Glu Val Asn Leu Phe Leu Val Pro Phe Met Asp
195        200        205
Ser Glu Ala Glu Ser Glu Asn Pro Pro Arg Ala Gly Pro Gly Ser Ser
210        215        220
Pro Leu Phe Ser Leu Leu Pro Gly Tyr Arg Gly His Pro Ser Phe Gln
225        230        235
Ser Leu Val Ser Lys Leu Arg Ser Gln Val Met Ser Met Ala Arg Pro
245        250        255
Gln Leu Ser His Thr Ile Leu Thr Glu Lys Asn Trp Phe His Tyr Ala
260        265        270
Ala Arg Ile Trp Asp Gly Val Arg Lys Ser Ser Ala Leu Ala Glu Tyr
275        280        285
Ser Arg Leu Leu Ala
290

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&lt;210&gt; 5451

&lt;211&gt; 1184

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5451

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420
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540

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 660  
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 720  
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 960  
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 1020  
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 1140  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa  
 1184

&lt;210&gt; 5452

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5452

Met Ser Ser Val Tyr Pro Arg Pro Leu Glu Gly Glu Ser Arg Ala Leu  
 1 5 10 15  
 Arg Lys Gly Ser His Leu Leu Ser Leu Ala Glu Pro Leu Pro Pro Tyr  
 20 25 30  
 Ser Ser Pro Glu Leu Ser Val Ala Phe His His Ser Gly Pro Ser Cys  
 35 40 45  
 Leu Ser Pro Ala Leu Ser Gln Thr Thr Gln Lys Ser Gly His Leu Trp  
 50 55 60  
 Ala Pro Gly Met Val Thr Glu Glu Lys His Ala Val Pro Val Ser Pro  
 65 70 75 80  
 Gly Phe Cys Gln Lys Ile Glu Gln Val Gln Leu Thr His Cys Tyr Cys  
 85 90 95  
 Arg Ser Leu Lys Leu Pro Gly Leu Val Leu Asp Pro Ser Arg Asn His  
 100 105 110  
 Gln Val Arg His Leu Glu Pro Pro Gly Glu Gly Pro Pro Ser Arg Ala  
 115 120 125  
 Leu Lys Glu Leu His Glu Ile Arg Asn Cys Leu Met Lys Cys Ile Ser  
 130 135 140  
 Leu Tyr Leu Glu Asp Glu Ala Gln Thr Pro Thr Pro Leu Ser Pro Pro  
 145 150 155 160  
 Gly Leu Gly Met Ser Pro Ala Ala Arg Pro Arg Ser Phe Pro Gly Gly  
 165 170 175  
 Leu Gly Glu Val Gly Ala Gly Thr Ile Ser Val Pro Ser Thr Leu Thr  
 180 185 190  
 Pro Ser Thr Ser Glu Thr Thr Leu Pro Gln Pro Asp Thr Glu

195

200

205

&lt;210&gt; 5453

&lt;211&gt; 1974

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5453

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 720  
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 1380

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 1860  
 cccatgccac aacctgggct cctggctaca gcagggtccc agggactcca aataaatgtt  
 1920  
 cagtgactgg caaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa  
 1974

&lt;210&gt; 5454

&lt;211&gt; 320

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5454

Xaa	Gly	Arg	Pro	Ala	Met	Glu	Pro	Gly	Ser	Val	Glu	Asn	Leu	Ser	Ile
1				5					10					15	
Val	Tyr	Arg	Ser	Arg	Asp	Phe	Leu	Val	Val	Asn	Lys	His	Trp	Asp	Val
			20					25						30	
Arg	Ile	Asp	Ser	Lys	Ala	Trp	Arg	Glu	Thr	Leu	Thr	Leu	Gln	Lys	Gln
		35					40					45			
Leu	Arg	Tyr	Arg	Phe	Pro	Glu	Leu	Ala	Asp	Pro	Asp	Thr	Cys	Tyr	Gly
	50					55				60					
Phe	Arg	Phe	Cys	His	Gln	Leu	Asp	Phe	Ser	Thr	Ser	Gly	Ala	Leu	Cys
65					70					75				80	
Val	Ala	Leu	Asn	Lys	Ala	Ala	Ala	Gly	Ser	Ala	Tyr	Arg	Cys	Phe	Lys
			85						90					95	
Glu	Arg	Arg	Val	Thr	Lys	Ala	Tyr	Leu	Ala	Leu	Leu	Arg	Gly	His	Ile
		100						105					110		
Gln	Glu	Ser	Arg	Val	Thr	Ile	Ser	His	Ala	Ile	Gly	Arg	Asn	Ser	Thr
		115					120					125			
Glu	Gly	Arg	Ala	His	Thr	Met	Cys	Ile	Glu	Gly	Ser	Gln	Gly	Val	Ala
	130					135					140				
Gly	Cys	Glu	Asn	Pro	Lys	Pro	Ser	Leu	Thr	Asp	Leu	Val	Val	Leu	Glu
145					150					155					160
His	Gly	Leu	Tyr	Ala	Gly	Asp	Pro	Val	Ser	Lys	Val	Leu	Leu	Lys	Pro
			165						170					175	
Leu	Thr	Gly	Arg	Thr	His	Gln	Leu	Arg	Val	His	Cys	Ser	Ala	Leu	Gly
		180						185					190		
His	Pro	Val	Val	Gly	Asp	Leu	Thr	Tyr	Gly	Glu	Val	Ser	Gly	Arg	Glu
		195					200					205			
Asp	Arg	Pro	Phe	Arg	Met	Met	Leu	His	Ala	Phe	Tyr	Leu	Arg	Ile	Pro

210	215	220
Thr Asp Thr Glu Cys Val Glu Val Cys Thr Pro Asp Pro Phe Leu Pro		
225	230	235
Ser Leu Asp Ala Cys Trp Ser Pro His Thr Leu Leu Gln Ser Leu Asp		240
	245	250
Gln Leu Val Gln Ala Leu Arg Ala Thr Pro Asp Pro Asp Pro Glu Asp		255
	260	265
Arg Gly Pro Arg Pro Gly Ser Pro Ser Ala Leu Leu Pro Gly Pro Gly		270
	275	280
Arg Pro Pro Pro Pro Thr Lys Pro Pro Glu Thr Glu Ala Gln Arg		285
	290	295
Gly Pro Cys Leu Gln Trp Leu Ser Glu Trp Thr Leu Glu Pro Asp Ser		300
305	310	315
		320

&lt;210&gt; 5455

&lt;211&gt; 975

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5455

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 60  
 gtttaaaagt aaagcacatt gtatgtatatt atttggaat acatgaggcc attaaaaccc  
 120  
 tgagcctaag gtaccacagt tagtctcatt tgccctctgt cctgtgaact ccacttagaa  
 180  
 tgtcattgaa ctgtggcgaga cataattcta gtgtctgttc caaacgcact gtgtcacaga  
 240  
 agctagaatt accattagag gcacaaaacc ctgagaatac acaagggggc acgcttcag  
 300  
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 420  
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 480  
 aatagccacc ttccaggcgt gagtctctga gataaaaatg gattttaacc taggactgcc  
 540  
 gggagctggc cctccggcgc tgctcagact agggctgtgt gtgtctggctc tcgcctgttt  
 600  
 ccggtgtcta actggcttgt ttctctttat ggcttggctt cattccgacc tgggggtggg  
 660  
 ccacatccaa cccactgccc actggctgtc cgtctggcct gcccgcgggt tccaaccaca  
 720  
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 780  
 cggacgggtg ggaggaccga ggggttgggg gcctcttacc ggagctacac cagcgagctg  
 840  
 accatgaaca tccccctcca gtccatccac ttcacacct atgagttcct gcaggagcag  
 900  
 gtcaaccccc accggacctc caaccgcag tcaccatca tctcaggcgg gctggccggg  
 960  
 gccctcgccg cggcg  
 975

&lt;210&gt; 5456

&lt;211&gt; 149

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5456

```

Pro Arg Thr Ala Gly Ser Trp Pro Ser Ala Ala Ala Gln Thr Arg Ala
 1             5             10             15
Val Cys Ala Gly Ser Arg Leu Phe Pro Val Ser Asn Trp Leu Val Ser
      20             25             30
Leu Tyr Gly Leu Ala Ser Phe Arg Pro Gly Val Gly Pro His Pro Thr
      35             40             45
His Cys Pro Leu Ala Val Arg Leu Ala Cys Pro Ala Val Pro Thr Thr
      50             55             60
Val Val Lys Gln Arg Leu Gln Met Tyr Asn Ser Gln His Arg Ser Ala
      65             70             75             80
Ile Ser Cys Ile Arg Thr Val Trp Arg Thr Glu Gly Leu Gly Ala Phe
      85             90             95
Tyr Arg Ser Tyr Thr Thr Gln Leu Thr Met Asn Ile Pro Phe Gln Ser
      100            105            110
Ile His Phe Ile Thr Tyr Glu Phe Leu Gln Glu Gln Val Asn Pro His
      115            120            125
Arg Thr Tyr Asn Pro Gln Ser His Ile Ile Ser Gly Gly Leu Ala Gly
      130            135            140
Ala Leu Ala Ala Ala
145

```

&lt;210&gt; 5457

&lt;211&gt; 448

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5457

```

cgacgaggga gcgtgggcag ccaggcggtg gcgcggagga tggatgggga cagccgagat
 60
ggcggcgcgcg gcaaggacgc caccgggtcg gaggactacg agaacctgcc gactagcgcc
120
tccgtgtcca cccacatgac agcaggagcg atggccggga tcttgaggca ctcggtcatg
180
taccoggtgg actcgggtgaa ggtaatgtgg actgtggagc tctgtgctgg tcactttcaa
240
ccctgaacct gatgctactt attttgagcgt tctaagtga aagtcggcct ggtggatgct
300
tcccattata atattaaatt tgcttcttcg tgaggtcaca cctcacatcc ccagtgatcac
360
tttaataact agtggtttttt acatgggtggg ccatgaccca ttagtgggact ctgcatttaa
420
aaataaataa ataaataaaa gaaaaaaaa
448

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&lt;210&gt; 5458

&lt;211&gt; 81

&lt;212&gt; PRT

<211> Homo sapiens

<400> 5458

```

Arg Ser Gly Ser Val Gly Ser Gln Ala Val Ala Arg Arg Met Asp Gly
 1             5             10             15
Asp Ser Arg Asp Gly Gly Gly Gly Lys Asp Ala Thr Gly Ser Glu Asp
      20             25             30
Tyr Glu Asn Leu Pro Thr Ser Ala Ser Val Ser Thr His Met Thr Ala
      35             40             45
Gly Ala Met Ala Gly Ile Leu Glu His Ser Val Met Tyr Pro Val Asp
      50             55             60
Ser Val Lys Val Met Trp Thr Val Glu Leu Cys Ala Gly His Phe Gln
65             70             75             80
Pro

```

<210> 5459

<211> 1468

<212> DNA

<213> Homo sapiens

<400> 5459

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120
cggatgggagc tgcgcagcgg gagcgtgggc agccaggcgg tggcgcgagg gatggatggg
180
gacagccgag atggcggcgg cggaaggac gccaccgggt cggaggacta cgagaacctg
240
ccgactagcg cctccgtgtc caccacatg acagcaggag cgatggccgg gatcctggag
300
cactcggta tgtaccgggt ggactcgggt aagacacgaa tgcagagttt gagtccagat
360
cccaaagccc agtacacaag tatctacgga gcctcaaga aaatcatgca gaccgaaggc
420
ttctggaggc ccttgcgagg cgtcaacgtc atgatcatgg gtgcagggcc agccccatgc
480
atgtattttg cctgctatga aaacatgaaa aggactttta atgacgtttt ccaccacaa
540
ggaaacagcc acctagccaa cgggtattttg aaagcgtttg tctggagtta gaaagtctc
600
ttcttcaaca cgtccctccc cagggtgttc ctcctctgta ccagccgcc tcgacttcgg
660
cccgcttgct cacgaataaa gaactcagag ttgtgtgtgc aatgcacacc cagacacagc
720
cacgcacaca cgcgcgcgc cacacacatg cttttttctg tccccctcgg ctttctgaag
780
cctgggggaga aatcagtgac agaggtgttt tggttttatt gttatgtggg ttttcttttg
840
tatttttttt gtttgttttg tttttaaaca ttcaaaagca attaatgatc agacatagga
900
gaaaccttga atagaacaaa aacttttgaa tgctgggattc aaaaaaaaaa aaaagttatc
960

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 ctaactaagc tttaaaaggt caagaagttt tatggctgac aaaggactcg cgcaacgcag  
 1080  
 aaggcctttc ccaccttaag cttccgggga tctgggaatt ttaccccat tctctctgt  
 1140  
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 1200  
 gagtatggcc accctgctcc acgatgcggt aatgaatcca gcagaaggta atgtttcatg  
 1260  
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 1320  
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 1380  
 tgaatttttt actacgttat caaaggcctc aagaaaggac gtgaacataa gagtttttgg  
 1440  
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 1468

<210> 5460

<211> 155

<212> PRT

<213> Homo sapiens

<400> 5460

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Met	Asp	Gly	Asp	Ser	Arg	Asp	Gly	Gly	Gly	Lys	Asp	Ala	Thr	Gly	
			20					25				30			
Ser	Glu	Asp	Tyr	Glu	Asn	Leu	Pro	Thr	Ser	Ala	Ser	Val	Ser	Thr	His
		35					40					45			
Met	Thr	Ala	Gly	Ala	Met	Ala	Gly	Ile	Leu	Glu	His	Ser	Val	Met	Tyr
		50				55					60				
Pro	Val	Asp	Ser	Val	Lys	Thr	Arg	Met	Gln	Ser	Leu	Ser	Pro	Asp	Pro
65					70					75				80	
Lys	Ala	Gln	Tyr	Thr	Ser	Ile	Tyr	Gly	Ala	Leu	Lys	Lys	Ile	Met	Gln
			85					90					95		
Thr	Glu	Gly	Phe	Trp	Arg	Pro	Leu	Arg	Gly	Val	Asn	Val	Met	Ile	Met
			100					105					110		
Gly	Ala	Gly	Pro	Ala	His	Ala	Met	Tyr	Phe	Ala	Cys	Tyr	Glu	Asn	Met
			115				120					125			
Lys	Arg	Thr	Leu	Asn	Asp	Val	Phe	His	His	Gln	Gly	Asn	Ser	His	Leu
		130				135					140				
Ala	Asn	Gly	Ile	Leu	Lys	Ala	Phe	Val	Trp	Ser					
145					150					155					

<210> 5461

<211> 1725

<212> DNA

<213> Homo sapiens

<400> 5461

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120  
cgggaggca gcaacgcaag gagccaaaat agtttcttgg ccggaatgct ttaattctcc  
180  
atatggagcg aaatattttc ctgaatatgc agagaaaatt cctggtgaat ccacacagaa  
240  
gctttctgaa gtacgaaagg aatgcagcat atatctcatt ggaggtaact tcctacccac  
300  
aaggctctat cctgaagag gatgctggga aattatataa cacctgtgct gtgtttgggc  
360  
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420  
gaaaaattac atttcaagaa tctaaaacat tgagtcgggg tgatagtctt tccacatttg  
480  
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540  
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720  
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900  
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1140  
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1680

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1725

<210> 5462

<211> 159

<212> PRT

<213> Homo sapiens

<400> 5462

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Phe His Leu Cys Ile Phe Cys Leu Glu Thr Ala Tyr Cys Arg Val Gly
             20             25             30
Leu Gly Ile Cys Tyr Asp Met Arg Phe Ala Glu Leu Ala Gln Ile Tyr
             35             40             45
Ala Gln Arg Gly Cys Gln Leu Leu Val Tyr Pro Gly Ala Phe Asn Leu
             50             55             60
Thr Thr Gly Pro Ala His Trp Glu Leu Leu Gln Arg Ser Arg Ala Val
             65             70             75
Asp Asn Gln Val Tyr Val Ala Thr Ala Ser Pro Ala Arg Asp Asp Lys
             85             90             95
Ala Ser Tyr Val Ala Trp Gly His Ser Thr Val Val Asn Pro Trp Gly
             100            105            110
Glu Val Leu Ala Lys Ala Gly Thr Glu Ala Ile Val Tyr Ser Asp
             115            120            125
Ile Asp Leu Lys Lys Leu Ala Glu Ile Arg Gln Gln Ile Pro Val Phe
             130            135            140
Arg Gln Lys Arg Ser Asp Leu Tyr Ala Val Glu Met Lys Lys Pro
             145            150            155
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<210> 5463

<211> 792

<212> DNA

<213> Homo sapiens

<400> 5463

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  120
gacaaaaggcg agggaacaaga gagagttaac atctagacag tggaaaaagc catggtgtgt
  180
ggtttctggg aaccaccaac acttgcaggt ttagcttttt cccaggggtg actacaagaa
  240
agaaaaaccat gtttttgcga gattaaaatg tggttgagtg tgcctaaatt aaccatcccc
  300
atttttatca tatttccacc atcacttcag ggttttaaga gtcagtgtc acctgggctg
  360
agctggtagt acattttgct tcttagaaag ctaagtcctg ggttcctgtc gatttttaggt
  420
tccaggaact tctgagaac acccgatcgc agagggtaat tttctggagt ttgttttgca
  480
gggatagctg ggagtatggc caccctgtc cacgatgcgg taatgaatcc agcagaagtg
  540
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 600  
 acgggtgtga ggaccgaggg gttggggggc ttctaccgga gctacaccac gcagctgacc  
 660  
 atgaacatcc ccttccagtc catccacttc atcacctatg agttcctgca ggagcaggtc  
 720  
 aacccccacc ggacctacaa cccgcagtc caccatcatc caggcgggct ggccggggcc  
 780  
 ctgcgcgagg cc  
 792

<210> 5464

<211> 111

<212> PRT

<213> Homo sapiens

<400> 5464

Phe	Ser	Gly	Val	Cys	Phe	Ala	Gly	Ile	Ala	Gly	Ser	Met	Ala	Thr	Leu
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Leu	His	Asp	Ala	Val	Met	Asn	Pro	Ala	Glu	Val	Val	Lys	Gln	Arg	Leu
			20				25						30		
Gln	Met	Tyr	Asn	Ser	Gln	His	Arg	Ser	Ala	Ile	Ser	Cys	Ile	Arg	Thr
		35					40					45			
Val	Trp	Arg	Thr	Glu	Gly	Leu	Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr
		50				55				60					
Gln	Leu	Thr	Met	Asn	Ile	Pro	Phe	Gln	Ser	Ile	His	Phe	Ile	Thr	Tyr
65					70				75					80	
Glu	Phe	Leu	Gln	Glu	Gln	Val	Asn	Pro	His	Arg	Thr	Tyr	Asn	Pro	Gln
			85					90					95		
Ser	His	Ile	Ile	Ser	Gly	Gly	Leu	Ala	Gly	Ala	Leu	Ala	Ala		
			100				105						110		

<210> 5465

<211> 497

<212> DNA

<213> Homo sapiens

<400> 5465

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 120  
 ggggtgctgt ggaggagga cagacggaca ggcggcctgg gtggccggcc ccagaaaggc  
 180  
 tggcgtggat gttcagatg agccaccagc gaagccagta gggatgtctg ggccgtcctg  
 240  
 gtgggattgt ctgggacatc gccaccaaca cggtgtcaga gccatcagtg gggacatcgg  
 300  
 aggggccacc accaggtggg gtatatccaa caggctagaa cccctgaggc ttgagaggcc  
 360  
 aacccccggc aggagacctc cctgacccc tctgctgcct ctctgtggg accctccagt  
 420  
 agacacacca gatgaggaca ccaggaggc ctctcccag gacaggaggc agtgctctgg  
 480

gcagccacgc agtgcac  
497

<210> 5466

<211> 134

<212> PRT

<213> Homo sapiens

<400> 5466

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Met Ala Pro Pro Leu Gln Gly Pro Gly Gly Ala Ala Gly Gly Arg Thr
 1           5           10           15
Asp Gly Gln Ala Ala Trp Val Ala Gly Pro Arg Lys Ala Gly Val Asp
           20           25           30
Val Arg Asp Glu Pro Pro Ala Lys Pro Val Gly Met Ser Gly Pro Ser
           35           40           45
Trp Trp Asp Cys Leu Gly His Arg His Gln His Gly Val Arg Ala Ile
           50           55           60
Ser Gly Asp Ile Gly Gly Ala Thr Thr Arg Trp Gly Ile Phe Asn Arg
65           70           75           80
Leu Glu Pro Leu Arg Leu Glu Arg Pro Thr Pro Gly Arg Arg Pro Pro
           85           90           95
Leu Thr Pro Leu Leu Pro Leu Leu Trp Asp Pro Pro Val Asp Thr Pro
           100          105          110
Asp Glu Asp Thr Gln Glu Ala Ser Ser Gln Asp Arg Arg Gln Leu Pro
           115          120          125
Gly Gln Pro Arg Ser Ala
130
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<210> 5467

<211> 1329

<212> DNA

<213> Homo sapiens

<400> 5467

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120
cccggatcca gttcctgga cttgggggat ctgaacgagt cggacttctt caacaatgct
180
cactttctct agcacctgga ccactttacg gagaacatgg aggacttctt caatgacctg
240
ttcagcagct tctttgatga cctgtgtctg gatgagaaga gccctctatt ggacatggaa
300
ctggactccc ctacgccagg catccaggcg gagcacagct actcccttag cggcgactca
360
ggcggccaga gcccccttgt gcccatcaag atggaggaca ccaccaaga tgcagagcat
420
ggagcatggg cgctgggaca caaactgtgc tccatcatgg tgaagcagga gcagagcccc
480
gagctgcccc tggacctctt ggctgccccc tcggccatgg ctgcgcgcgc cgccatggcc
540
accacccgcg tgctgggcct cagcccttgc tccaggtctc ccatccccca ccaggccccg
600
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ggagagatga ctcagctgcc agtgcataaa gcagagcctc tggagggtgaa ccagttcctc  
 660  
 aaagtgcacac cggaggacct ggtgcagatg cctccgacgc cccccagcag ccatggcagt  
 720  
 gacagcgacg gctcccagag tccccgctct ctgccccctt ccagccctgt caggcccatg  
 780  
 gcgcgtctct ccacggccat ctccagctcc ccactctca cggtctctca taaattacag  
 840  
 gggacatcag gccctctggt cctgacagag gaggagaaga ggaccctgat tgctgagggc  
 900  
 tatcccatcc ccaccaaact cccctcacc aaatcagagg agaaggcctt gaagaaaatt  
 960  
 cggaggaaga tcaagaataa gatttctgct caggaaagta ggagaaagaa gaaagaatac  
 1020  
 atggacagcc tggagaaaaa agtggagtct tgttcaactg agaacttgga gcttcggaag  
 1080  
 aaggtagaga ccttgaggaa tgccaacagc ttctccagcg ggatccagcc actcctctgt  
 1140  
 tccctgattg gcttgaggaa tcccacctga cccccaccc caccctctg tctctggctg  
 1200  
 ggggttcttt ctggcccaaa gtaggtecaa gcccttgtag ttatttcgcc acctgctgta  
 1260  
 cattgtgga actgcaaccc ctacgtgcc gtttgggtgg agagagatta aacatttgcc  
 1320  
 caccaaaaa  
 1329

&lt;210&gt; 5468

&lt;211&gt; 363

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5468

Met Asp Ala Val Leu Glu Pro Phe Pro Ala Asp Arg Leu Phe Pro Gly  
 1 5 10 15  
 Ser Ser Phe Leu Asp Leu Gly Asp Leu Asn Glu Ser Asp Phe Leu Asn  
 20 25 30  
 Asn Ala His Phe Pro Glu His Leu Asp His Phe Thr Glu Asn Met Glu  
 35 40 45  
 Asp Phe Ser Asn Asp Leu Phe Ser Ser Phe Phe Asp Asp Pro Val Leu  
 50 55 60  
 Asp Glu Lys Ser Pro Leu Leu Asp Met Glu Leu Asp Ser Pro Thr Pro  
 65 70 75 80  
 Gly Ile Gln Ala Glu His Ser Tyr Ser Leu Ser Gly Asp Ser Ala Pro  
 85 90 95  
 Gln Ser Pro Leu Val Pro Ile Lys Met Glu Asp Thr Thr Gln Asp Ala  
 100 105 110  
 Glu His Gly Ala Trp Ala Leu Gly His Lys Leu Cys Ser Ile Met Val  
 115 120 125  
 Lys Gln Glu Gln Ser Pro Glu Leu Pro Val Asp Pro Leu Ala Ala Pro  
 130 135 140  
 Ser Ala Met Ala Ala Ala Ala Met Ala Thr Thr Pro Leu Leu Gly  
 145 150 155 160  
 Leu Ser Pro Leu Ser Arg Leu Pro Ile Pro His Gln Ala Pro Gly Glu

165 170 175  
 Met Thr Gln Leu Pro Val Ile Lys Ala Glu Pro Leu Glu Val Asn Gln  
 180 185 190  
 Phe Leu Lys Val Thr Pro Glu Asp Leu Val Gln Met Pro Thr Pro  
 195 200 205  
 Pro Ser Ser His Gly Ser Asp Ser Asp Gly Ser Gln Ser Pro Arg Ser  
 210 215 220  
 Leu Pro Pro Ser Ser Pro Val Arg Pro Met Ala Arg Ser Ser Thr Ala  
 225 230 235 240  
 Ile Ser Ser Ser Pro Leu Leu Thr Ala Pro His Lys Leu Gln Gly Thr  
 245 250 255  
 Ser Gly Pro Leu Val Leu Thr Glu Glu Lys Arg Thr Leu Ile Ala  
 260 265 270  
 Glu Gly Tyr Pro Ile Pro Thr Lys Leu Pro Leu Thr Lys Ser Glu Glu  
 275 280 285  
 Lys Ala Leu Lys Lys Ile Arg Arg Lys Ile Lys Asn Lys Ile Ser Ala  
 290 295 300  
 Gln Glu Ser Arg Arg Lys Lys Lys Glu Tyr Met Asp Ser Leu Glu Lys  
 305 310 315 320  
 Lys Val Glu Ser Cys Ser Thr Glu Asn Leu Glu Leu Arg Lys Lys Val  
 325 330 335  
 Glu Thr Leu Glu Asn Ala Asn Ser Phe Ser Ser Gly Ile Gln Pro Leu  
 340 345 350  
 Leu Cys Ser Leu Ile Gly Leu Glu Asn Pro Thr  
 355 360

&lt;210&gt; 5469

&lt;211&gt; 1292

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5469

nncgcggccg cgtcgacgga aggggaggac gtgggatggg gccggagctg gctgcagcag  
 60  
 agctaccaag cagtcaaga gaagtcctct gaagccttgg agtttatgaa gcgggacctg  
 120  
 accgagttaa cccaggtggg gcagcatgac acggcctgta ccatcgacgc caccggccagc  
 180  
 gtgggtcaagg agaagctggc tacggaaggg tcctcaggag caacagagaa gatgaagaaa  
 240  
 gggttatctg acttcctagg ggtgatctca gacaccttgg ccccttcgcc agacaaaaac  
 300  
 atcgactgcg atgtcatcac cctgatgggg acaccgtctg gcacagctga gccctatgat  
 360  
 ggcaccaagg ctgcctctta tagcctgcag tcggacccag caacctactg taatgaacca  
 420  
 gatggggccc cggaattgtt tgacgcctgg etttccagct tctgcttgga ggagaagaa  
 480  
 ggggagatct cagagctcct tgtaggcagc cctccatcc gggccctcta caccaagatg  
 540  
 gttccagcag ctgtttccca ttcagaattc tggcatcggg atttctataa agtccatcag  
 600  
 ttagagcagg agcaggcccc gagggacgac ctgaagcagc gggcggaaca gagcatctct  
 660

gaagagcccg gctgggagga ggaggaagag gagctcatgg gcatttcacc catatctcca  
 720  
 aaagaggcaa aggttcctgt ggccaaaatt tctacattcc ctgaaggaga acctggcccc  
 780  
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 840  
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 960  
 cagggccttg ctgtggatgt ggggtgagact ggaccctcac ccctattca ctccaagccc  
 1020  
 ctaacgcctg ctggccacac cggcggccca gagccaggc ctccagccag agtagagact  
 1080  
 ctgagggagg aggcgcccac agacttacgg gtgtttgagc tgaactcgga tagtgggaag  
 1140  
 tctacacct ccaacaatgg aaagaaaggc tcaagcacgg acatcagtga ggactgggag  
 1200  
 aaagactttg acttggacat gactgaagag gaggtgcaga tggcactttc caaagtgat  
 1260  
 gcctccgggg agctgaagat gttagggggg aa  
 1292

&lt;210&gt; 5470

&lt;211&gt; 427

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5470

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 Trp Leu Gln Gln Ser Tyr Gln Ala Val Lys Glu Lys Ser Ser Glu Ala  
 20 25 30  
 Leu Glu Phe Met Lys Arg Asp Leu Thr Glu Phe Thr Gln Val Val Gln  
 35 40 45  
 His Asp Thr Ala Cys Thr Ile Ala Ala Thr Ala Ser Val Val Lys Glu  
 50 55 60  
 Lys Leu Ala Thr Glu Gly Ser Ser Gly Ala Thr Glu Lys Met Lys Lys  
 65 70 75 80  
 Gly Leu Ser Asp Phe Leu Gly Val Ile Ser Asp Thr Phe Ala Pro Ser  
 85 90 95  
 Pro Asp Lys Thr Ile Asp Cys Asp Val Ile Thr Leu Met Gly Thr Pro  
 100 105 110  
 Ser Gly Thr Ala Glu Pro Tyr Asp Gly Thr Lys Ala Arg Leu Tyr Ser  
 115 120 125  
 Leu Gln Ser Asp Pro Ala Thr Tyr Cys Asn Glu Pro Asp Gly Pro Pro  
 130 135 140  
 Glu Leu Phe Asp Ala Trp Leu Ser Gln Phe Cys Leu Glu Glu Lys Lys  
 145 150 155 160  
 Gly Glu Ile Ser Glu Leu Leu Val Gly Ser Pro Ser Ile Arg Ala Leu  
 165 170 175  
 Tyr Thr Lys Met Val Pro Ala Ala Val Ser His Ser Glu Phe Trp His  
 180 185 190  
 Arg Tyr Phe Tyr Lys Val His Gln Leu Glu Gln Glu Ala Arg Arg

195 200 205  
 Asp Ala Leu Lys Gln Arg Ala Glu Gln Ser Ile Ser Glu Glu Pro Gly  
 210 215 220  
 Trp Glu Glu Glu Glu Glu Glu Leu Met Gly Ile Ser Pro Ile Ser Pro  
 225 230 235 240  
 Lys Glu Ala Lys Val Pro Val Ala Lys Ile Ser Thr Phe Pro Glu Gly  
 245 250 255  
 Glu Pro Gly Pro Gln Ser Pro Cys Glu Glu Asn Leu Val Thr Ser Val  
 260 265 270  
 Glu Pro Pro Ala Glu Val Thr Pro Ser Glu Ser Ser Glu Ser Ile Ser  
 275 280 285  
 Leu Val Thr Gln Ile Ala Asn Pro Ala Thr Ala Pro Glu Ala Arg Val  
 290 295 300  
 Leu Pro Lys Asp Leu Ser Gln Lys Leu Leu Glu Ala Ser Leu Glu Glu  
 305 310 315 320  
 Gln Gly Leu Ala Val Asp Val Gly Glu Thr Gly Pro Ser Pro Pro Ile  
 325 330 335  
 His Ser Lys Pro Leu Thr Pro Ala Gly His Thr Gly Gly Pro Glu Pro  
 340 345 350  
 Arg Pro Pro Ala Arg Val Glu Thr Leu Arg Glu Glu Ala Pro Thr Asp  
 355 360 365  
 Leu Arg Val Phe Glu Leu Asn Ser Asp Ser Gly Lys Ser Thr Pro Ser  
 370 375 380  
 Asn Asn Gly Lys Lys Gly Ser Ser Thr Asp Ile Ser Glu Asp Trp Glu  
 385 390 395 400  
 Lys Asp Phe Asp Leu Asp Met Thr Glu Glu Glu Val Gln Met Ala Leu  
 405 410 415  
 Ser Lys Val Asp Ala Ser Gly Glu Leu Lys Met  
 420 425

<210> 5471  
 <211> 534  
 <212> DNA  
 <213> Homo sapiens

<400> 5471  
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 ctggccccac tacgcggggc ccagagccag ggtgggggat gcagagaccg ggcgtgctggg  
 120  
 ttgccagggtg tggcgccatg gtgtgccctg gggcagagta cacagacaca agcttgtgtg  
 180  
 gacacgaatg tgtagctatg tgcgagtgca cacggagtgg tgagtgcagg gacccacagg  
 240  
 cggcctgcgt cggtgcgcag ggcataatagg ggcgtgcaag cagtcttgga ggtgtgtgca  
 300  
 cagagcccc ggcacccgcg tgtgtgcaaa gacacaggaa cccgtctgag tggcgctgtg  
 360  
 tgtgcaaccc aaggaggtgg gcgcttgagc tccaaagtgt gcgcttatcc ggaatgtggat  
 420  
 gtggggggcag ccgggggacag ggctgggtgt gcgtgactcg ggtgtgccgg gacccacaga  
 480  
 gcatatgtgt ccatgcctgg tgctgtgact catgtccctg gggtggggcag gcgt  
 534

<210> 5472  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 5472  
 Met Leu Cys Gly Ser Arg His Thr Arg Val Thr His Thr Gln Pro Cys  
 1 5 10 15  
 Pro Arg Leu Pro Pro His Pro His Pro Asp Lys Arg Thr Leu Trp Ser  
 20 25 30  
 Pro Ser Ala His Leu Leu Gly Leu His Thr Gln Arg His Ala Asp Gly  
 35 40 45  
 Phe Leu Cys Leu Cys Thr His Ala Gly Ala Gly Ser Val His Thr  
 50 55 60  
 Pro Pro Arg Leu Arg Ala Arg Pro Tyr Met Pro Cys Ala Pro Thr Gln  
 65 70 75 80  
 Ala Gly Leu Gly Ser Leu His Ser Pro Leu Arg Val His Ser His Ile  
 85 90 95  
 Ala Thr His Ser Cys Pro His Lys Leu Val Ser Leu Tyr Ser Ala His  
 100 105 110  
 Gly His Thr Cys Ala Pro His Leu Ala Thr Arg Thr Pro Gly Leu Cys  
 115 120 125  
 Ile Pro His Pro Gly Ser Gly Pro Arg Val Val Gly Pro Ala Gly Ser  
 130 135 140  
 Ala Ala Ala Ser Ala Arg Thr Val Leu Phe Leu Arg Pro Arg Gly Ala  
 145 150 155 160  
 Ala

<210> 5473  
 <211> 691  
 <212> DNA  
 <213> Homo sapiens

<400> 5473  
 gcgaccagca gcgctggtgg ccattgctctt ggacactacg gcctggcggg cagccctcgc  
 60  
 cgctgccgcg ccccgcgccc ccaggaggcc gcaccctgcg ccagggcccg gagacagcaa  
 120  
 catcttcttg ggccctgcagg agacctgaca gatgccaaa caaaggaaca gttgggatcc  
 180  
 aggcagcatg aggtagaatg gcaaacctac cagggtattc tgaagaagac aagagtcatt  
 240  
 gaaaaaacca agtggctgga tatcaaagga aatcatgaaa aagatggagg agctcttatt  
 300  
 actggccaag gaaagcagtc ggagcaacca tacaatttgg tttggacact ttacaacatc  
 360  
 cactattctt tctccatcac caggaatccg gtcaataatg agttcggcta tagcttattt  
 420  
 gtgtggacat ctccatacac ttggtggact gatgcctgtt ttgcacactc gtcacttcca  
 480  
 gggcactttg gaacttgagg tgggagactg gaaggataat agggagtacc ggatttttgc  
 540

ttttgatcac gacctcttta gctttgcaga ttgatcttt gggaagtggc ctgtgggtct  
 600  
 tatcaccaat cctaaatcac tcctttatag ttgtggtgaa catgaaccac tagaaagact  
 660  
 ttttcaactca acccacatta gattggtaac a  
 691

<210> 5474  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 5474  
 Met Lys Lys Met Glu Glu Leu Leu Leu Ala Lys Glu Ser Ser Arg  
 1 5 10 15  
 Ser Asn His Thr Ile Trp Phe Gly His Phe Thr Thr Ser Thr Ile Leu  
 20 25 30  
 Ser Pro Ser Pro Gly Ile Arg Ser Ile Met Ser Ser Ala Ile Ala Tyr  
 35 40 45  
 Leu Cys Gly His Leu His Thr Leu Gly Gly Leu Met Pro Val Leu His  
 50 55 60  
 Thr Arg His Phe Gln Gly Thr Leu Glu Leu Glu Val Gly Asp Trp Lys  
 65 70 75 80  
 Asp Asn Arg Arg Tyr Arg Ile Phe Ala Phe Asp His Asp Leu Phe Ser  
 85 90 95  
 Phe Ala Asp Leu Ile Phe Gly Lys Trp Pro Val Val Leu Ile Thr Asn  
 100 105 110  
 Pro Lys Ser Leu Leu Tyr Ser Cys Gly Glu His Glu Pro Leu Glu Arg  
 115 120 125  
 Leu Leu His Ser Thr His Ile Arg Leu Val Thr  
 130 135

<210> 5475  
 <211> 628  
 <212> DNA  
 <213> Homo sapiens

<400> 5475  
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 gacaagtacg ggaagcccaa caagaggaaa ggcttcaatg aagggtctgt ggagatccag  
 120  
 aacaaccccc acgccagcta cagcgccctt ccgccagtga gctcctccga cagcgaggcc  
 180  
 cccgaggcca accccgccga cggcagtgac gctgacgagg acgatgagga cccggggggtc  
 240  
 atggccgtca cagcggtaac cgccacagct gccagcgaca ggatggagag cgactcagac  
 300  
 tcagacaaga gtagcgacaa cagtggcctg aagaggaaga cgctctgcgt aaagatgtcg  
 360  
 gtctcgaaac gagccgaaa ggcctccagc gacctggatc agggccagct gtccccatcc  
 420  
 gaagaggaga actcgaaaag ctcatctgag tcggagaaga ccagcgacca ggacttcaca  
 480

cctgagaaga aagcagcggg cggggcgcca cggagggggc ctctgggggg acggaaaaaa  
 540  
 aagaaggcgc cgtcagcctc cgactccgac tccaaggccg attcggacgg ggccaagcct  
 600  
 gagccgggtgg ccatggcgcg gtcggcgt  
 628

<210> 5476  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 5476  
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 20 25 30  
 Asn Glu Gly Leu Trp Glu Ile Gln Asn Asn Pro His Ala Ser Tyr Ser  
 35 40 45  
 Ala Pro Pro Pro Val Ser Ser Ser Asp Ser Glu Ala Pro Glu Ala Asn  
 50 55 60  
 Pro Ala Asp Gly Ser Asp Ala Asp Glu Asp Asp Glu Asp Arg Gly Val  
 65 70 75 80  
 Met Ala Val Thr Ala Val Thr Ala Thr Ala Ala Ser Asp Arg Met Glu  
 85 90 95  
 Ser Asp Ser Asp Ser Asp Lys Ser Ser Asp Asn Ser Gly Leu Lys Arg  
 100 105 110  
 Lys Thr Pro Ala Leu Lys Met Ser Val Ser Lys Arg Ala Arg Lys Ala  
 115 120 125  
 Ser Ser Asp Leu Asp Gln Ala Ser Val Ser Pro Ser Glu Glu Asn  
 130 135 140  
 Ser Glu Ser Ser Ser Glu Ser Glu Lys Thr Ser Asp Gln Asp Phe Thr  
 145 150 155 160  
 Pro Glu Lys Lys Ala Ala Val Arg Ala Pro Arg Arg Gly Pro Leu Gly  
 165 170 175  
 Gly Arg Lys Lys Lys Lys Ala Pro Ser Ala Ser Asp Ser Asp Ser Lys  
 180 185 190  
 Ala Asp Ser Asp Gly Ala Lys Pro Glu Pro Val Ala Met Ala Arg Ser  
 195 200 205  
 Ala

<210> 5477  
 <211> 727  
 <212> DNA  
 <213> Homo sapiens

<400> 5477  
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 ggctggggcag tccccagcc ggtttgtcca cagcccctgg gggcagtggga ggtgaataca  
 120  
 gggcccttct cactgagctc gtgaagtgcc tcagtcagg caaggtcccc tggtcacat  
 180

ggcccccccc gcccatgggg ttgggctggg ccttatagtg cctacgttag tctgtgtgga  
 240  
 gcccttgccc agcgggggag aaaaagggtg cttctgggtc gtctgtataa aacatggccc  
 300  
 ctcacctgtc gggccccccac acagctggca ggctgggctg gcctctcacc cctggcctcc  
 360  
 cctggacccc tggtgggtc ctcaacttca ctctccgcac ttagtgcccc gccgccccca  
 420  
 gactcatcgt cgctcagccc atagggaagc ccaggcctgg cccccagaga gtctccttcc  
 480  
 gagtctctct cgaagcccat gagctgggtc ctgttgccgt cgccttctct ctcttctctt  
 540  
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 600  
 ggtcctctgt cgaggagtc ttcagtatcc actttgaccc cctcgcattt caggggctgc  
 660  
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 720  
 gcggccg  
 727

<210> 5478

<211> 99

<212> PRT

<213> Homo sapiens

<400> 5478

Ser	Ala	Ser	Val	Lys	Ala	Arg	Ser	Pro	Gly	Pro	Tyr	Gly	Pro	Pro	Arg
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Pro	Trp	Gly	Trp	Ala	Gly	Pro	Tyr	Ser	Ala	Tyr	Val	Ser	Leu	Cys	Gly
			20						25				30		
Ala	Pro	Gly	Gln	Arg	Gly	Arg	Lys	Arg	Trp	Leu	Leu	Val	Arg	Leu	Tyr
		35					40					45			
Lys	Thr	Trp	Pro	Leu	Thr	Cys	Arg	Pro	Pro	Thr	Gln	Leu	Ala	Gly	Trp
		50				55				60					
Ala	Gly	Leu	Ser	Pro	Leu	Ala	Ser	Pro	Gly	Pro	Leu	Ala	Gly	Ser	Ser
65					70					75				80	
Thr	Ser	Leu	Ser	Ala	Leu	Ser	Ala	Arg	Pro	Pro	Pro	Asp	Ser	Ser	Ser
			85						90					95	

Leu Ser Pro

<210> 5479

<211> 1386

<212> DNA

<213> Homo sapiens

<400> 5479

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 120  
 atgcgagagg agcagctggc acgggaggcc gagggccggg cgagcgggga ggcggaggcc  
 180

cgaggcgagg agggagcagga ggcacgagag aaggcgagg cggagcagga ggagcaggag  
 240  
 cggctgcaga agcagaaaga ggagccgaa gctcgggtcgc gggaagaggc ggagcggcag  
 300  
 cgtctggagc gggaagagca cttccagcag caggagcaag agcggcaaga gcgcagaaag  
 360  
 cgtctggagg agatcatgaa gaggactcgg aagtcagaag tttctgaaac caagcagaag  
 420  
 caggacagca agggagccaa cgccaacggt tccagccag agcctgtgaa agctgtggag  
 480  
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 540  
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&lt;210&gt; 5480

&lt;211&gt; 251

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5480

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 20 25 30  
 Leu Gln Ala Glu Arg Asp Lys Arg Met Arg Glu Glu Gln Leu Ala Arg

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      35              40              45
Glu Ala Glu Ala Arg Ala Glu Arg Glu Ala Glu Ala Arg Arg Arg Glu
  50              55              60
Glu Gln Glu Ala Arg Glu Lys Ala Gln Ala Glu Gln Glu Gln Glu
  65              70              75              80
Arg Leu Gln Lys Gln Lys Glu Glu Ala Glu Ala Arg Ser Arg Glu Glu
      85              90              95
Ala Glu Arg Gln Arg Leu Glu Arg Glu Lys His Phe Gln Gln Gln Glu
      100              105              110
Gln Glu Arg Gln Glu Arg Arg Lys Arg Leu Glu Glu Ile Met Lys Arg
      115              120              125
Thr Arg Lys Ser Glu Val Ser Glu Thr Lys Gln Lys Gln Asp Ser Lys
      130              135              140
Glu Ala Asn Ala Asn Gly Ser Ser Pro Glu Pro Val Lys Ala Val Glu
      145              150              155              160
Ala Arg Ser Pro Gly Leu Gln Lys Glu Ala Val Gln Lys Glu Glu Pro
      165              170              175
Ile Pro Gln Glu Pro Gln Trp Ser Leu Pro Ser Lys Glu Leu Pro Ala
      180              185              190
Ser Leu Val Asn Gly Leu Gln Pro Leu Pro Ala His Gln Glu Asn Gly
      195              200              205
Phe Ser Thr Asn Gly Pro Ser Gly Asp Lys Ser Leu Ser Arg Thr Pro
      210              215              220
Glu Thr Leu Leu Pro Phe Ala Glu Ala Glu Ala Phe Leu Lys Lys Ala
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<210> 5481

<211> 1513

<212> DNA

<213> Homo sapiens

<400> 5481

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720
aagattattt gcatgggtgc aaaagaaaaa ggtttgcgcg tggagtatca agagaagtta
780
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1500
aaaaaaaaaaa aaa
1513

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&lt;210&gt; 5482

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5482

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          20             25             30
Leu Arg Asn Pro Ser Ala Ala Phe Phe Cys Val Ala Arg Leu Gln Asp
          35             40             45
Phe Lys Leu Asp Phe Gly Asn Ser Gln Gly Lys Thr Ser Gln Thr Trp
          50             55             60
His Gly Gly Ile Ala Thr Ile Phe Gln Ser Pro Gly Asp Glu Leu Trp
          65             70             75             80
Gly Val Val Trp Lys Met Asn Lys Ser Asn Leu Asn Ser Leu Asp Glu
          85             90             95
Gln Glu Gly Val Lys Ser Gly Met Tyr Val Val Ile Glu Val Lys Val
          100            105            110
Ala Thr Gln Glu Gly Lys Glu Ile Thr Cys Arg Ser Tyr Leu Met Thr

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115	120	125
Asn Tyr Glu Ser Ala Pro Pro Ser Pro Gln Tyr Lys Lys Ile Ile Cys		
130	135	140
Met Gly Ala Lys Glu Asn Gly Leu Pro Leu Glu Tyr Gln Glu Lys Leu		
145	150	155
Lys Ala Ile Glu Pro Asn Asp Tyr Thr Gly Lys Val Ser Glu Glu Ile		
165	170	175
Glu Asp Ile Ile Lys Lys Gly Glu Thr Gln Thr Leu		
180	185	

&lt;210&gt; 5483

&lt;211&gt; 1552

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5483

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120  
ttcacctaca tcgagtctgc ctccggagctc agaggggggt ttgactggag cctccacttc  
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300  
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360  
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420  
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720  
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900  
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960  
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1020  
aaccatgtg agtcctcact catgagccag cactggggaca tggtagctc ttgaggaccc  
1080  
ctgccagaag cagcaagggc catggggtgg tgcttccctg gaccagaaca gactggaaac  
1140

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<210> 5484  
 <211> 357  
 <212> PRT  
 <213> Homo sapiens

<400> 5484  
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 Ile Asp Ile Ile Asn Leu Asp Thr Phe Thr Tyr Ile Glu Ser Ala Ser  
 35 40 45  
 Glu Leu Arg Gly Gly Phe Asp Trp Ser Leu His Phe Gln Trp Glu Gln  
 50 55 60  
 Leu Ser Pro Glu Gln Lys Ala Arg Arg Leu Asp Pro Thr Glu Pro Ile  
 65 70 75 80  
 Arg Thr Pro Ile Ile Ala Gly Gly Leu Phe Val Ile Asp Lys Ala Trp  
 85 90 95  
 Phe Asp Tyr Leu Gly Lys Tyr Asp Met Asp Met Asp Ile Trp Gly Gly  
 100 105 110  
 Glu Asn Phe Glu Ile Ser Phe Arg Val Trp Met Cys Gly Gly Ser Leu  
 115 120 125  
 Glu Ile Val Pro Cys Ser Arg Val Gly His Val Phe Arg Lys Lys His  
 130 135 140  
 Pro Tyr Val Phe Pro Asp Gly Asn Ala Asn Thr Tyr Ile Lys Asn Thr  
 145 150 155 160  
 Lys Arg Thr Ala Glu Val Trp Met Asp Glu Tyr Lys Gln Tyr Tyr Tyr  
 165 170 175  
 Ala Ala Arg Pro Phe Ala Leu Glu Arg Pro Phe Gly Asn Val Glu Ser  
 180 185 190  
 Arg Leu Asp Leu Arg Lys Asn Leu Arg Cys Gln Ser Phe Lys Trp Tyr  
 195 200 205  
 Leu Glu Asn Ile Tyr Pro Glu Leu Ser Ile Pro Lys Glu Phe Ser Ile  
 210 215 220  
 Gln Lys Gly Asn Ile Arg Gln Arg Gln Lys Cys Leu Glu Ser Gln Arg  
 225 230 235 240  
 Gln Asn Asn Gln Glu Thr Pro Asn Leu Lys Leu Ser Pro Cys Ala Lys  
 245 250 255  
 Val Lys Gly Glu Asp Ala Lys Ser Gln Val Trp Ala Phe Thr Tyr Thr

	260		265		270
Gln Lys Ile	Leu Gln Glu	Glu Leu Cys Leu	Ser Val Ile Thr	Leu Phe	
	275		280	285	
Pro Gly Ala	Pro Val Val	Leu Val Leu Cys	Lys Asn Gly Asp	Asp Arg	
	290	295	300		
Gln Gln Trp	Thr Lys Thr	Gly Ser His Ile	Glu His Ile Ala	Ser His	
305		310	315	320	
Leu Cys Leu	Asp Thr Asp	Met Phe Gly Asp	Gly Thr Glu Asn	Gly Lys	
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Glu Ile Val	Val Asn Pro	Cys Glu Ser Ser	Leu Met Ser Gln	His Trp	
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&lt;210&gt; 5485

&lt;211&gt; 1549

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5485

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<210> 5486

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5486

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Asp	Ser	Pro	Ser	Thr	Ser	Arg	Ser	Gly	Gly	Ser	Ser	Arg	Leu	Ser	Ser
			20					25					30		
Arg	Ser	Arg	Ser	Arg	Ser	Phe	Ser	Arg	Ser	Ser	Arg	Ser	His	Ser	Arg
		35				40					45				
Val	Ser	Ser	Arg	Phe	Ser	Ser	Arg	Ser	Arg	Arg	Ser	Lys	Ser	Arg	Ser
		50				55				60					
Arg	Ser	Arg	Arg	Arg	His	Gln	Arg	Lys	Tyr	Arg	Arg	Tyr	Ser	Arg	Ser
65					70					75				80	
Tyr	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Arg	Tyr	Arg	Glu	Arg
			85					90						95	
Arg	Tyr	Gly	Phe	Thr	Arg	Arg	Tyr	Tyr	Arg	Ser	Pro	Ser	Arg	Tyr	Arg
		100					105						110		
Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Gly	Arg	Ser	Tyr	Cys	Gly
		115				120					125				
Arg	Ala	Tyr	Ala	Ile	Ala	Arg	Gly	Gln	Arg	Tyr	Tyr	Gly	Phe	Gly	Arg
	130					135					140				
Thr	Val	Tyr	Pro	Glu	Glu	His	Ser	Arg	Trp	Arg	Asp	Arg	Ser	Arg	Thr
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Arg	Ser	Arg	Ser	Arg	Thr	Pro	Phe	Arg	Leu	Ser	Glu	Lys	Asp	Arg	Met
			165					170					175		
Glu	Leu	Leu	Glu	Ile	Ala	Lys	Thr	Asn	Ala	Ala	Lys	Ala	Leu	Gly	Thr
		180					185				190				
Thr	Asn	Ile	Asp	Leu	Pro	Ala	Ser	Leu	Arg	Thr	Val	Pro	Ser	Ala	Lys
	195					200					205				
Glu	Thr	Ser	Arg	Gly	Ile	Gly	Val	Ser	Ser	Asn	Gly	Ala	Lys	Pro	Glu
	210				215						220				
Leu	Ser	Glu	Lys	Val	Thr	Glu	Asp	Gly	Thr	Arg	Asn	Pro	Asn	Glu	Lys

225		230		235		240									
Pro	Thr	Gln	Gln	Arg	Ser	Ile	Ala	Phe	Ser	Ser	Asn	Asn	Ser	Val	Ala
				245					250					255	
Lys	Pro	Ile	Gln	Lys	Ser	Ala	Lys	Ala	Ala	Thr	Glu	Glu	Ala	Ser	Ser
			260					265						270	
Arg	Ser	Pro	Lys	Ile	Asp	Gln	Lys	Lys	Ser	Pro	Tyr	Gly	Leu	Trp	Ile
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Pro	Ile														
	290														

&lt;210&gt; 5487

&lt;211&gt; 1716

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5487

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<210> 5488

<211> 272

<212> PRT

<213> Homo sapiens

<400> 5488

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			20					25					30		
Gly	Phe	Trp	Arg	Pro	Leu	Arg	Gly	Val	Asn	Val	Met	Ile	Met	Gly	Ala
	35						40				45				
Gly	Pro	Ala	His	Ala	Met	Tyr	Phe	Ala	Cys	Tyr	Glu	Asn	Met	Lys	Arg
	50					55					60				
Thr	Leu	Asn	Asp	Val	Phe	His	His	Gln	Gly	Asn	Ser	His	Leu	Ala	Asn
65				70					75						80
Gly	Ile	Ala	Gly	Ser	Met	Ala	Thr	Leu	Leu	His	Asp	Ala	Val	Met	Asn
			85						90					95	
Pro	Ala	Glu	Val	Val	Lys	Gln	Arg	Leu	Gln	Met	Tyr	Asn	Ser	Gln	His
		100						105					110		
Arg	Ser	Ala	Ile	Ser	Cys	Ile	Arg	Thr	Val	Trp	Arg	Thr	Glu	Gly	Leu
	115						120					125			
Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr	Gln	Leu	Thr	Met	Asn	Ile	Pro
	130					135					140				
Phe	Gln	Ser	Ile	His	Phe	Ile	Thr	Tyr	Glu	Phe	Leu	Gln	Glu	Gln	Val
145				150					155						160
Asn	Pro	His	Arg	Thr	Tyr	Asn	Pro	Gln	Ser	His	Ile	Ile	Ser	Gly	Gly
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&lt;210&gt; 5489

&lt;211&gt; 1600

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5489

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<211> 357

<212> PRT

<213> Homo sapiens

<400> 5490

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&lt;210&gt; 5491

&lt;211&gt; 5555

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5491

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&lt;210&gt; 5492

&lt;211&gt; 602

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5492

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&lt;210&gt; 5493

&lt;211&gt; 6538

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5493

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&lt;210&gt; 5494

&lt;211&gt; 1278

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5494

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 Ile Ala Tyr Gly Asp Lys Arg Tyr Asn Cys Glu Tyr Ser Gly Pro Pro  
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 Lys Pro Leu Pro Lys Asp Gly Tyr Asp Leu Val Gln Glu Leu Cys Pro  
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 Gly Phe Phe Phe Gly Asn Val Ser Leu Cys Cys Asp Val Arg Gln Leu  
 65 70 75 80  
 Gln Thr Leu Lys Asp Asn Leu Gln Leu Pro Leu Gln Phe Leu Ser Arg  
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 Cys Pro Ser Cys Phe Tyr Asn Leu Leu Asn Leu Phe Cys Glu Leu Thr  
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 Cys Ser Pro Arg Gln Ser Gln Phe Leu Asn Val Thr Ala Thr Glu Asp  
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 Tyr Val Asp Pro Val Thr Asn Gln Thr Lys Thr Asn Val Lys Glu Leu  
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 Gln Tyr Tyr Val Gly Gln Ser Phe Ala Asn Ala Met Tyr Asn Ala Cys

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Cys Gly Lys Asp Ala	Asp Ala Cys Asn Ala Thr Asn Trp Ile Glu Tyr					
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Met Phe Asn Lys Asp Asn Gly Gln Ala Pro Phe Thr Ile Thr Pro Val						
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Phe Ser Asp Phe Pro Val His Gly Met Glu Pro Met Asn Asn Ala Thr						
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Lys Gly Cys Asp Glu Ser Val Asp Glu Val Thr Ala Pro Cys Ser Cys						
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Gln Asp Cys Ser Ile Val Cys Gly Pro Lys Pro Gln Pro Pro Pro Pro						
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Pro Ala Pro Trp Thr Ile Leu Gly Leu Asp Ala Met Tyr Val Ile Met						
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Trp Ile Thr Tyr Met Ala Phe Leu Leu Val Phe Phe Gly Ala Phe Phe						
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Ala Val Trp Cys Tyr Arg Lys Arg Tyr Phe Val Ser Glu Tyr Thr Pro						
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Ser Ser Gln Ala Arg Leu Glu Lys Glu Tyr Phe Asp Gln His Phe Gly						
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Pro Phe Phe Arg Thr Glu Gln Leu Ile Ile Arg Ala Pro Leu Thr Asp						
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Lys His Ile Tyr Gln Pro Tyr Pro Ser Gly Ala Asp Val Pro Phe Gly						
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Ala Ile Glu Asn Ile Thr Ala Ser Tyr Asp Asn Glu Thr Val Thr Leu						
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Gln Asp Ile Cys Leu Ala Pro Leu Ser Pro Tyr Asn Thr Asn Cys Thr						
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&lt;211&gt; 2414

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5495

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<210> 5496

<211> 345

<212> PRT

<213> Homo sapiens

<400> 5496

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			20					25				30			
Leu	Leu	Gly	Ser	Met	Ala	Leu	Ser	Asn	His	Tyr	Arg	Ser	Glu	Asp	Leu
		35					40					45			
Leu	Asp	Val	Asp	Thr	Ala	Ala	Gly	Gly	Phe	Gln	Gln	Arg	Gln	Gly	Leu
	50					55					60				
Lys	Tyr	Cys	Leu	Pro	Leu	Thr	Phe	Cys	Ile	His	Thr	Gly	Leu	Ser	Gln
65					70					75				80	
Tyr	Ile	Ala	Val	Glu	Ala	Ala	Glu	Gly	Arg	Asn	Lys	Asn	Glu	Val	Phe
			85						90				95		
Tyr	Gln	Cys	Pro	Asp	Gln	Met	Ala	Arg	Asn	Pro	Ala	Ala	Ile	Asp	Met
			100					105					110		
Phe	Ile	Ile	Gly	Ala	Thr	Phe	Thr	Asp	Trp	Phe	Thr	Ser	Tyr	Val	Lys
			115				120					125			
Asn	Val	Val	Ser	Gly	Gly	Phe	Pro	Ile	Ile	Arg	Asp	Gln	Ile	Phe	Arg
	130					135					140				
Tyr	Val	His	Asp	Pro	Glu	Cys	Val	Ala	Thr	Thr	Gly	Asp	Ile	Thr	Val
145					150					155					160
Ser	Val	Ser	Thr	Ser	Phe	Leu	Pro	Glu	Leu	Ser	Ser	Val	His	Pro	Pro
			165						170				175		
His	Tyr	Phe	Phe	Thr	Tyr	Arg	Ile	Arg	Ile	Glu	Met	Ser	Lys	Asp	Ala
		180						185					190		
Leu	Pro	Glu	Lys	Ala	Cys	Gln	Leu	Asp	Ser	Arg	Tyr	Trp	Arg	Ile	Thr
		195					200					205			
Asn	Ala	Lys	Gly	Asp	Val	Glu	Glu	Val	Gln	Gly	Pro	Gly	Val	Val	Gly
	210					215					220				
Glu	Phe	Pro	Ile	Ile	Ser	Pro	Gly	Arg	Val	Tyr	Glu	Tyr	Thr	Ser	Cys
225					230					235				240	
Thr	Thr	Phe	Ser	Thr	Thr	Ser	Gly	Tyr	Met	Glu	Gly	Tyr	Tyr	Thr	Phe
				245					250				255		
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260										265					270				
Phe	His	Met	Ala	Cys	Pro	Thr	Phe	Arg	Val	Ser	Ile	Ala	Arg	Leu	Glu				
						280					285								
Met	Gly	Pro	Asp	Glu	Tyr	Glu	Glu	Met	Glu	Glu	Glu	Glu	Glu	Glu	Glu				
						290					300								
Glu	Glu	Glu	Asp	Glu	Asp	Asp	Asp	Ser	Ala	Asp	Met	Asp	Glu	Ser	Asp				
						305					310								
Glu	Asp	Asp	Glu	Glu	Glu	Arg	Arg	Arg	Arg	Val	Phe	Asp	Val	Pro	Ile				
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						335					340								
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						345													

&lt;210&gt; 5497

<211> 1056

&lt;212&gt; DNA

<213> Homo sapiens

&lt;400&gt; 5497

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120	tgactatggg	tggaactcggg	tgtagacctc	tgaagctgag	atcacacgaa
180	cccccccatg	tagctgtttg	agagttagaaa	aatagagcac	gcctgatgtt
240	aagactttta	atagtaatga	agaatccatg	gcactctcct	cacctcaaa
300	tcattcacat	acaggcccca	aagtcactgt	tagtgctgca	gtggctcctg
360	aaagcccgga	gagggcgtgg	aagaaaatcg	ctggcccccg	gcaggtttctc
420	tgcccaaggc	tcctgggacc	ctaaaaaact	tcaaaagtta	actccccacg
480	gcttgggttt	ctggactttt	ctgaggcacc	ggcagagggg	tctcgttgct
540	caggggcagc	cctttaacct	ggctccttga	gtccctgctt	ttttctgttc
600	ttcctcgtct	tcctctctct	caatatctcc	ctctctttgt	ccctccccag
660	ggccatcccc	gggtgccctt	gaccagcccc	gtgtctctct	aggggtgtcc
720	tgccacagag	tggggctcag	ttagagtatg	tgggagtgtg	gtttcgccag
780	gaaaggactc	gaccaccaca	gctgagccac	tagctggggc	atgcgaagag
840	aaaggctgga	gggtggaatt	cattttttag	agggtgtgtga	gcagcttccg
900	cattttgaacg	ggggccttgc	tggtcgcgtc	cctgcattca	ccgcgcgggc
960	tccaacagtt	gatcctaact	gagcacgcgc	acggccctgg	tctggcctgg
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1056					

<210> 5498  
 <211> 150  
 <212> PRT  
 <213> Homo sapiens

<400> 5498  
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 His Pro Pro Ala Phe Ala Pro Arg Thr Leu Arg Met Ala Gln Leu Val  
 20 25 30  
 Ala Gln Leu Trp Trp Ser Ser Pro Phe Ile His Ser Pro Gly Glu Thr  
 35 40 45  
 Asn Ile Pro His Thr Leu Thr Glu Pro His Ser Val Pro Gly Trp Cys  
 50 55 60  
 Trp Asp Thr Leu Arg Arg His Gly Ala Gly Gln Gly His Pro Gly Met  
 65 70 75 80  
 Ala Arg Ser Gly Thr Glu Gly Gln Arg Glu Gly Asp Ile Glu Arg  
 85 90 95  
 Glu Glu Asp Glu Glu Glu Gly Asn Arg Ser Arg Lys Ser Arg Asp Ser  
 100 105 110  
 Arg Ser Gln Val Lys Gly Leu Pro Leu His Ser Arg Glu Gln Arg Asp  
 115 120 125  
 Pro Ser Ala Gly Ala Ser Glu Lys Ser Arg Asn Pro Ser Arg Met Gly  
 130 135 140  
 Thr Trp Gly Val Asn Phe  
 145 150

<210> 5499  
 <211> 1918  
 <212> DNA  
 <213> Homo sapiens

<400> 5499  
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 gtctcatgtt gaagacttta tggagcatcc tggccagaac aagccaagga gccaaagaca  
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 gagggacaca cggacaaaca acagacagaa gacgtactgg ccgctggact ccgctgcctc  
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 540  
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 600

ggggaccatg gaattgtgga cattgcacat aattcagact gtgaacaaa aagtaagctc  
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 720  
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 1800  
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 1860  
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 1918

&lt;210&gt; 5500

&lt;211&gt; 426

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5500

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20 25 30  
 Leu Arg Phe Asn Glu Thr Thr Leu Cys Lys Pro Leu Val Pro Arg Glu  
 35 40 45  
 His Gln Phe Tyr Glu Thr Leu Pro Ala Glu Met Arg Lys Phe Thr Pro  
 50 55 60  
 Gln Tyr Lys Gly Val Val Ser Val Arg Phe Glu Asp Glu Asp Arg  
 65 70 75 80  
 Asn Leu Cys Leu Ile Ala Tyr Pro Leu Lys Gly Asp His Gly Ile Val  
 85 90 95  
 Asp Ile Ala His Asn Ser Asp Cys Glu Pro Lys Ser Lys Leu Leu Arg  
 100 105 110  
 Trp Thr Thr Asn Lys Lys His His Val Leu Glu Thr Glu Lys Thr Pro  
 115 120 125  
 Lys Asp Trp Val Arg Gln His Arg Lys Glu Glu Lys Met Lys Ser His  
 130 135 140  
 Lys Leu Glu Glu Glu Phe Glu Trp Leu Lys Lys Ser Glu Val Leu Tyr  
 145 150 155 160  
 Tyr Thr Val Glu Lys Lys Gly Asn Ile Ser Ser Gln Leu Lys His Tyr  
 165 170 175  
 Asn Pro Trp Ser Met Lys Cys His Gln Gln Gln Leu Gln Arg Met Lys  
 180 185 190  
 Glu Asn Ala Lys His Arg Asn Gln Tyr Lys Phe Ile Leu Leu Glu Asn  
 195 200 205  
 Leu Thr Ser Arg Tyr Glu Val Pro Cys Val Leu Asp Leu Lys Met Gly  
 210 215 220  
 Thr Arg Gln His Gly Asp Asp Ala Ser Glu Glu Lys Ala Ala Asn Gln  
 225 230 235 240  
 Ile Arg Lys Cys Gln Gln Ser Thr Ser Ala Val Ile Gly Val Xaa Val  
 245 250 255  
 Cys Gly Met Gln Val Tyr Gln Ala Gly Ser Gly Gln Leu Met Phe Met  
 260 265 270  
 Asn Lys Tyr His Gly Arg Lys Leu Ser Val Gln Gly Phe Lys Glu Ala  
 275 280 285  
 Leu Phe Gln Phe Phe His Asn Gly Arg Tyr Leu Arg Arg Glu Leu Leu  
 290 295 300  
 Gly Pro Val Leu Lys Lys Leu Thr Glu Leu Lys Ala Val Leu Glu Arg  
 305 310 315 320  
 Gln Glu Ser Tyr Arg Phe Tyr Ser Ser Ser Leu Leu Val Ile Tyr Asp  
 325 330 335  
 Gly Lys Glu Arg Pro Glu Val Val Leu Asp Ser Asp Ala Glu Asp Leu  
 340 345 350  
 Glu Asp Leu Ser Glu Glu Ser Ala Asp Glu Ser Ala Gly Ala Tyr Ala  
 355 360 365  
 Tyr Lys Pro Ile Gly Ala Ser Ser Val Asp Val Arg Met Ile Asp Phe  
 370 375 380  
 Ala His Thr Thr Cys Arg Leu Tyr Gly Glu Asp Thr Val Val His Glu  
 385 390 395 400  
 Gly Gln Asp Ala Gly Tyr Ile Phe Gly Leu Gln Ser Leu Ile Asp Ile  
 405 410 415  
 Val Thr Glu Ile Ser Glu Glu Ser Gly Glu  
 420 425

&lt;210&gt; 5501

&lt;211&gt; 568

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5501

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 tgaagcgggg acaaaaccat gcagctcaga ggtccctgtg ggggctgggg gagctgcctt  
 180  
 gcaggctctg gcacatgcac agcaggctcc ccatagcttt gtcaccacaa agggcactgt  
 240  
 tctattcaca gcacctcctg cttctgcctg gcaactgtgt ctcctgtgac tatatttaac  
 300  
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 420  
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 480  
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 540  
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 568

&lt;210&gt; 5502

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5502

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1				5					10					15	
Glu	Ala	Gly	Thr	Lys	Pro	Cys	Ser	Ser	Glu	Val	Pro	Val	Gly	Ala	Gly
				20				25					30		
Gly	Ala	Ala	Leu	Gln	Val	Leu	Ala	His	Ala	Gln	Gln	Ala	Pro	His	Ser
				35				40				45			
Phe	Val	Thr	Thr	Lys	Gly	Thr	Val	Leu	Phe	Thr	Ala	Pro	Pro	Ala	Ser
				50			55				60				
Ala	Trp	Gln	Leu	Cys	Leu	Pro	Val	Leu	Tyr	Leu	Ile	Pro	Pro	Ala	Lys
65					70				75					80	
Leu	Ala	Arg	Gln	Gly	Pro	Ala	Leu	Lys	Glu	Ile	Ser	Leu	Pro	Asp	Pro
				85					90					95	
Trp	Thr	Trp	Lys	Trp	Arg	Leu	His	Val	Pro	Ala	Leu	Ala	Ala		
			100					105					110		

&lt;210&gt; 5503

&lt;211&gt; 1679

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5503

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taacgccgtc tcagaattgc ataaatttgc ctacattttt caaagaagtt gggttatctg  
120  
atttaaatcct cacaatagtc aagctaggaa ggtaagtgtg gaattattac cccatttgat  
180  
aggtagacaa attaaagctt aagatcaaac cgtttgcaaa gcaggaagca gcacttcctc  
240  
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300  
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360  
tcagcccctc atgtctcagga cactcagagt gaggaactgc caccctcctg caccatctca  
420  
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480  
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540  
cagactcagg gggaagattg ttccctccca gtgggagagg tgaagatagg aaagaggctc  
600  
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660  
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720  
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780  
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840  
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900  
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1200  
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1440  
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1560  
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1679

<210> 5504  
 <211> 392  
 <212> PRT  
 <213> Homo sapiens

<400> 5504  
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 Leu Pro Pro Ser Cys Thr Ile Ser Gly Glu Lys Lys Pro Ala Val  
 35 40 45  
 Ser Gly Glu Ala Thr Gly Ala Asp Ala Gly Arg Leu Cys Pro Pro Pro  
 50 55 60  
 Arg Ser Arg Ala Pro His Lys Asp Arg Thr Leu Ala Arg Ser Arg Pro  
 65 70 75 80  
 Gln Thr Gln Gly Glu Asp Cys Ser Leu Pro Val Gly Glu Val Lys Ile  
 85 90 95  
 Gly Lys Arg Ser Tyr Ser Pro Ala Pro Gly Lys Gln Lys Lys Pro Asn  
 100 105 110  
 Ala Met Gly Leu Ala Pro Thr Ser Ser Pro Gly Ala Pro Asn Ser Ala  
 115 120 125  
 Arg Ala Thr His Asn Pro Val Pro Cys Gly Ser Gly Arg Gly Pro Cys  
 130 135 140  
 His Leu Ala Asn Leu Leu Ser Thr Leu Ala Gln Ser Asn Gln Asn Arg  
 145 150 155 160  
 Asp His Lys Gln Gly Pro Pro Glu Val Thr Cys Gln Ile Arg Lys Lys  
 165 170 175  
 Thr Arg Thr Leu Tyr Arg Ser Asp Gln Leu Glu Glu Leu Glu Lys Ile  
 180 185 190  
 Phe Gln Glu Asp His Tyr Pro Asp Ser Asp Lys Arg Arg Glu Ile Ala  
 195 200 205  
 Gln Thr Val Gly Val Thr Pro Gln Arg Ile Met Val Lys Gly Ala Gly  
 210 215 220  
 Ser Leu Val Ala Gly Trp Ser Gly Gly Gly Pro Thr Ile Glu Thr Leu  
 225 230 235 240  
 Glu Leu Gln Ser Glu Arg Ser Ala Val Ala Trp Val Trp Phe Gln Asn  
 245 250 255  
 Arg Arg Ala Lys Trp Arg Lys Met Glu Lys Leu Asn Gly Lys Glu Ser  
 260 265 270  
 Lys Asp Asn Pro Ala Ala Pro Gly Pro Ala Ser Ser Gln Cys Ser Ser  
 275 280 285  
 Ala Ala Glu Ile Leu Pro Ala Val Pro Met Glu Pro Lys Pro Asp Pro  
 290 295 300  
 Phe Pro Gln Glu Ser Pro Leu Asp Thr Phe Pro Glu Pro Pro Met Leu  
 305 310 315 320  
 Leu Thr Ser Asp Gln Thr Leu Ala Pro Thr Gln Pro Ser Glu Gly Ala  
 325 330 335  
 Gln Arg Val Val Thr Pro Pro Leu Phe Ser Pro Pro Pro Val Arg Arg  
 340 345 350  
 Ala Asp Leu Pro Phe Pro Leu Gly Pro Val His Thr Pro Gln Leu Met  
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 Pro Leu Leu Met Asp Val Ala Gly Ser Asp Ser Ser His Lys Asp Gly

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Pro Cys Gly Ser Trp Gly Thr Arg
385              390

<210> 5505
<211> 1099
<212> DNA
<213> Homo sapiens

<400> 5505
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240
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420
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600
ctcaaagtgc agctcctgtc ggctgactac ttcgtgttgg cctccttcga gccagaccgg
660
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720
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780
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840
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960
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1020
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1080
tttcagagac ggagcacct
1099

<210> 5506
<211> 280
<212> PRT
<213> Homo sapiens

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&lt;400&gt; 5506

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 Gln Glu Gly Val Gln Lys Pro Gln Ala Met Ala Val Gly Asn Ile Asn  
 20 25 30  
 Glu Leu Pro Glu Asn Ile Leu Leu Glu Leu Phe Thr His Val Pro Ala  
 35 40 45  
 Arg Gln Leu Leu Leu Asn Cys Arg Leu Val Cys Ser Leu Trp Arg Asp  
 50 55 60  
 Leu Ile Asp Leu Val Thr Leu Trp Lys Arg Lys Cys Leu Arg Glu Gly  
 65 70 75 80  
 Phe Ile Thr Glu Asp Trp Asp Gln Pro Val Ala Asp Trp Lys Ile Phe  
 85 90 95  
 Tyr Phe Leu Arg Ser Leu His Arg Asn Leu Leu His Asn Pro Cys Ala  
 100 105 110  
 Glu Glu Gly Phe Glu Phe Trp Ser Leu Asp Val Asn Gly Gly Asp Glu  
 115 120 125  
 Trp Lys Val Glu Asp Leu Ser Arg Asp Gln Arg Lys Glu Phe Pro Asn  
 130 135 140  
 Asp Gln Val Lys Lys Tyr Phe Val Thr Ser Tyr Trp Thr Cys Leu Lys  
 145 150 155 160  
 Ser Gln Val Val Asp Leu Lys Ala Glu Gly Tyr Trp Glu Glu Leu Leu  
 165 170 175  
 Asp Thr Phe Arg Pro Asp Ile Val Val Lys Asp Trp Phe Ala Ala Arg  
 180 185 190  
 Ala Asp Cys Gly Cys Thr Tyr Gln Leu Lys Val Gln Leu Leu Ser Ala  
 195 200 205  
 Asp Tyr Phe Val Leu Ala Ser Phe Glu Pro Asp Pro Ala Thr Ile Gln  
 210 215 220  
 Gln Lys Ser Asp Ala Lys Trp Arg Glu Val Ser His Thr Phe Ser Asn  
 225 230 235 240  
 Tyr Pro Pro Gly Val Arg Tyr Ile Trp Phe Gln His Gly Gly Val Asp  
 245 250 255  
 Thr His Tyr Trp Ala Gly Trp Tyr Gly Pro Arg Val Thr Asn Ser Ser  
 260 265 270  
 Ile Thr Ile Gly Pro Pro Leu Pro  
 275 280

&lt;210&gt; 5507

&lt;211&gt; 1658

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5507

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420  
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480  
cggtattaca aagagaagtt tggaaatcact gatttaccac gtattgatgt gagcaagcgg  
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1560  
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1620  
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1658

&lt;210&gt; 5508

&lt;211&gt; 448

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5508

Xaa Leu Glu Ser Gln Gly Ile Glu Leu Asn Pro Pro Glu Lys Met Ala

1	5	10	15	
Leu Asp Pro Tyr	Thr Glu Leu Arg Lys Gln Pro Leu Arg Lys Tyr Val			
	20	25	30	
Thr Pro Ser Asp Phe Asp Gln Leu Lys Gln Phe Leu Thr Phe Asp Lys				
	35	40	45	
Gln Val Leu Arg Phe Tyr Ala Ile Trp Asp Asp Thr Asp Ser Met Tyr				
	50	55	60	
Gly Glu Cys Arg Thr Tyr Ile Ile His Tyr Tyr Leu Met Asp Asp Thr				
	65	70	75	
Val Glu Ile Arg Glu Val His Glu Arg Asn Asp Gly Arg Asp Pro Phe				
	85	90	95	
Pro Leu Leu Met Asn Arg Gln Arg Val Pro Lys Val Leu Val Glu Asn				
	100	105	110	
Ala Lys Asn Phe Pro Gln Cys Val Leu Glu Ile Ser Asp Gln Glu Val				
	115	120	125	
Leu Glu Trp Tyr Thr Ala Lys Asp Phe Ile Val Gly Lys Ser Leu Thr				
	130	135	140	
Ile Leu Gly Arg Thr Phe Phe Ile Tyr Asp Cys Asp Pro Phe Thr Arg				
	145	150	155	
Arg Tyr Tyr Lys Glu Lys Phe Gly Ile Thr Asp Leu Pro Arg Ile Asp				
	165	170	175	
Val Ser Lys Arg Glu Pro Pro Pro Val Lys Gln Glu Leu Pro Pro Tyr				
	180	185	190	
Asn Gly Phe Gly Leu Val Glu Asp Ser Ala Gln Asn Cys Phe Ala Leu				
	195	200	205	
Ile Pro Lys Ala Pro Lys Lys Asp Val Ile Lys Met Leu Val Asn Asp				
	210	215	220	
Asn Lys Val Leu Arg Tyr Leu Ala Val Leu Glu Ser Pro Ile Pro Glu				
	225	230	235	
Asp Lys Asp Arg Arg Phe Val Phe Ser Tyr Phe Leu Ala Thr Asp Met				
	245	250	255	
Ile Ser Ile Phe Glu Pro Pro Val Arg Asn Ser Gly Ile Ile Gly Gly				
	260	265	270	
Lys Tyr Leu Gly Arg Thr Lys Val Val Lys Pro Tyr Ser Thr Val Asp				
	275	280	285	
Asn Pro Val Tyr Tyr Gly Pro Ser Asp Phe Phe Ile Gly Ala Val Ile				
	290	295	300	
Glu Val Phe Gly His Arg Phe Ile Ile Leu Asp Thr Asp Glu Tyr Val				
	305	310	315	
Leu Lys Tyr Met Glu Ser Asn Ala Ala Gln Tyr Ser Pro Glu Ala Leu				
	325	330	335	
Ala Ser Ile Gln Asn His Val Arg Lys Arg Glu Ala Pro Ala Pro Glu				
	340	345	350	
Ala Glu Ser Lys Gln Thr Glu Lys Asp Pro Gly Val Gln Glu Leu Glu				
	355	360	365	
Ala Leu Ile Asp Thr Ile Gln Lys Gln Leu Lys Asp His Ser Cys Lys				
	370	375	380	
Asp Asn Ile Arg Glu Ala Phe Gln Ile Tyr Asp Lys Glu Ala Ser Gly				
	385	390	395	
Tyr Val Asp Arg Asp Met Phe Phe Lys Ile Cys Glu Ser Leu Asn Val				
	405	410	415	
Pro Val Asp Asp Ser Leu Val Lys Glu Leu Ile Arg Met Cys Ser His				
	420	425	430	
Gly Glu Gly Lys Ile Asn Tyr Tyr Asn Phe Val Arg Ala Phe Ser Asn				

435 440 445

<210> 5509  
 <211> 818  
 <212> DNA  
 <213> Homo sapiens

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 120  
 ctatgtgaga ggaagtaagt atacacagcg taagagggtg gataaccaag tcatagaaga  
 180  
 aatgttttga gaacatggaa tcatgtgaac ttattatgtg gtaagtacag ataccaggg  
 240  
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 300  
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 360  
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 420  
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 480  
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 540  
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 600  
 aacctctatg aatgttagga atttcagaaa acattcactt ccccccaaa ccttcaaaga  
 660  
 tgtgaaaatg catagtggag atggacctta caaatgcaag gtgggtagga aaacctttga  
 720  
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 780  
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 818

<210> 5510  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 5510  
 Met Trp Leu Ser Thr Ser Pro Tyr Arg Lys Gly Ser Gln Cys Gly Glu  
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 Ala Phe Ser Gln Ile Pro Gly His Asn Leu Asn Lys Lys Thr Pro Pro  
 20 25 30  
 Gly Val Lys Pro Pro Glu Ser His Val Cys Gly Glu Val Gly Val Gly  
 35 40 45  
 Tyr Pro Ser Thr Glu Arg His Ile Arg Asp Arg Leu Gly Arg Lys Pro  
 50 55 60  
 Cys Glu Tyr Gln Glu Cys Arg Gln Lys Ala Tyr Thr Cys Lys Pro Cys  
 65 70 75 80  
 Gly Asn Ala Phe Arg Phe His His Ser Phe His Ile His Glu Arg Pro

85 90 95  
 His Ser Gly Glu Asn Leu Tyr Glu Cys  
 100 105

<210> 5511

<211> 379

<212> DNA

<213> Homo sapiens

<400> 5511

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 120  
 ctctgctgag ttgctgagag tctgtgttcc tctctccact tataggatgg gtccctcatct  
 180  
 tcttgagctt caagcccaaa ggcagagacc tggctgctcc tcatgggagc ctcagggata  
 240  
 atgctgaatt cctctatggc agagatggga ggagaggctc cacgctgggc ctccctcagcc  
 300  
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 379

<210> 5512

<211> 101

<212> PRT

<213> Homo sapiens

<400> 5512

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 20 25 30  
 Val Ser Ala Leu Gly Leu Glu Ala Gln Glu Asp Glu Asp Pro Ser Tyr  
 35 40 45  
 Lys Trp Arg Glu Glu His Arg Leu Ser Ala Thr Gln Gln Ser Glu Leu  
 50 55 60  
 Arg Asp Val Cys Asp Tyr Ala Ile Glu Thr Met Pro Ser Phe Pro Lys  
 65 70 75 80  
 Glu Gly Ser Ala Asp Val Glu Pro Asn Gln Glu Ser Leu Val Ala Glu  
 85 90 95  
 Ala Cys Asp Thr Pro  
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<210> 5513

<211> 837

<212> DNA

<213> Homo sapiens

<400> 5513

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120  
agactcgggg agccattgac catcgtctct gaggatggag actggtggag ggtgctgtct  
180  
gaagtctcag gcagagagta taacatcccc agcgtccacg tggccaaagt ctccatggg  
240  
tggtgtgatg agggcctgag caggagagaa gcagaggacc tgctgtgtgt acctgggaac  
300  
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360  
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480  
gaccattact ctgagctggc ggtatgacatc tgctgcctac tcaaggagcc ctgtgtcctg  
540  
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720  
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780  
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837

&lt;210&gt; 5514

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5514

Xaa	Ser	Leu	Ser	Ser	Ser	Val	Gln	Gly	Gln	Gly	Pro	Val	Thr	Met	Glu
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Ala	Glu	Arg	Ser	Lys	Ala	Thr	Ala	Ala	Leu	Gly	Ser	Phe	Pro	Ala	
			20				25					30			
Gly	Gly	Pro	Ala	Glu	Leu	Ser	Leu	Arg	Leu	Gly	Glu	Pro	Leu	Thr	Ile
			35				40				45				
Val	Ser	Glu	Asp	Gly	Asp	Trp	Trp	Thr	Val	Leu	Ser	Glu	Val	Ser	Gly
			50			55					60				
Arg	Glu	Tyr	Asn	Ile	Pro	Ser	Val	His	Val	Ala	Lys	Val	Ser	His	Gly
			65			70				75				80	
Trp	Leu	Tyr	Glu	Gly	Leu	Ser	Arg	Glu	Lys	Ala	Glu	Asp	Leu	Leu	Leu
			85						90					95	
Leu	Pro	Gly	Asn	Pro	Gly	Gly	Ala	Phe	Leu	Ile	Arg	Glu	Ser	Gln	Thr
			100					105						110	
Arg	Arg	Gly	Ser	Tyr	Ser	Leu	Ser	Val	Arg	Leu	Ser	Arg	Pro	Ala	Ser
			115				120					125			
Trp	Asp	Arg	Ile	Arg	His	Tyr	Arg	Ile	His	Cys	Leu	Asp	Asn	Gly	Trp
			130			135					140				
Leu	Tyr	Ile	Ser	Pro	Arg	Leu	Thr	Phe	Pro	Ser	Leu	Gln	Ala	Leu	Val
			145			150				155				160	
Asp	His	Tyr	Ser	Glu	Leu	Ala	Asp	Asp	Ile	Cys	Cys	Leu	Leu	Lys	Glu

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                165                170                175
Pro Cys Val Leu Gln Arg Ala Gly Pro Leu Pro Gly Lys Asp Ile Pro
      180      185      190
Leu Pro Val Thr Val Gln Arg Thr Pro Leu Asn Trp Lys Glu Leu Asp
      195      200      205
Ser Ser Leu Leu Phe Ser Glu Ala Ala Thr Gly Glu Glu Ser Leu Leu
      210      215      220
Ser Glu Gly Leu Arg Glu Ser Leu Ser Phe Tyr Ile Ser Leu Asn Asp
225      230      235      240
Glu Ala Val Ser Leu Asp Asp Ala
      245

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&lt;210&gt; 5515

&lt;211&gt; 420

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5515

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120
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420

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&lt;210&gt; 5516

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5516

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Val Cys Thr Asn Pro Leu Ser Ile Leu Glu Ala Val Met Ala His Cys
  1      5      10      15
Lys Lys Met Gln Glu Arg Met Ser Ala Gln Leu Ala Ala Glu Ser
      20      25      30
Arg Gln Lys Lys Leu Glu Met Glu Lys Leu Gln Leu Gln Ala Leu Glu
      35      40      45
Gln Glu His Lys Lys Leu Ala Ala Arg Leu Glu Glu Glu Arg Gly Lys
      50      55      60
Asn Lys Gln Val Val Leu Met Leu Val Lys Glu Cys Lys Gln Leu Ser
65      70      75      80
Ser Lys Val Ile Glu Glu Ala Gln Lys Leu Glu Asp Val Met Ala Lys
      85      90      95
Leu Ala Ser Ser Leu Cys His Gln His Leu Leu His Ser Leu Ser Gly
100      105      110
Val Pro Gly Thr Gly His Ile Asp

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115

120

<210> 5517  
 <211> 804  
 <212> DNA  
 <213> Homo sapiens

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 120  
 atccgtgccca gcagctctcca gggtcagaag caattcaaga ccctgatgat agctctccag  
 180  
 caaccaacac atgggtgacat ggtgattgtg ccaacttgtt gctcagttat atgcaggggc  
 240  
 agtgattgggt ttaagtgaag accatgggtg agatcatttg tctttgggtct aatagaattt  
 300  
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 360  
 ggtagagcat gaatgacagc atattatacc atcaagatgt tcttagagca gtgtatggat  
 420  
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 480  
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 804

<210> 5518  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 5518  
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 Ile Val Val Gly Ser Ser Asp Arg Ile Arg Ala Ser Ser Leu Gln Val  
 35 40 45  
 Gln Lys Gln Phe Lys Thr Leu Met Ile Ala Leu Gln Gln Pro Thr His  
 50 55 60  
 Gly Asp Met Val Ile Val Pro Thr Cys Cys Ser Val Ile Cys Arg Ala  
 65 70 75 80  
 Ser Asp Trp Phe Lys

85

<210> 5519  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 5519  
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 120  
 ccatgcgcct cactacttac catgttcctg cgggcattcc cctccgaag ggagtctctg  
 180  
 aaaacaaaca cacacagaag ttggcgctgg gcaccacatt ctctcttga cctaaccatc  
 240  
 aggaatttgc tgtgccatct gttcataaaa cttagccagg ccagaaaagc ttgtccaac  
 300  
 cacatgctaa gagccaagca gatggaacag aagctcccc aagctgctgg ctcccactat  
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 401

<210> 5520  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 5520  
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 Trp His Ser Lys Phe Leu Met Val Arg Ser Arg Gly Glu Cys Gly Ala  
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 Gln Arg Gln Leu Leu Cys Val Phe Val Phe Arg Asp Ser Leu Arg Glu  
 35 40 45  
 Gly Asn Ala Arg Arg Asn Met Val Ser Ser Glu Ala His Gly Cys Phe  
 50 55 60  
 Leu Arg Pro Ala Val Phe Tyr Ala Thr Tyr Pro Cys Thr Ser Tyr Ala  
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 Lys Glu Thr Lys Pro Ser Ala Cys Leu Phe Pro Leu Leu Ile Ile Gly  
 85 90 95  
 Lys Trp Met Leu Trp  
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<210> 5521  
 <211> 2524  
 <212> DNA  
 <213> Homo sapiens

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acagacgcat cgtttctttt ttaatactcc ctaagaaagg gaataacctt caagctggcg  
180  
ggagcaatgg ttcacataaa gaaaggcgag ctgacccagg aggagaagga gctactggaa  
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gtcatcgga aaggtactgt ccaagaagct ggaacattat tatccagcaa gaatgttcgt  
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420  
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480  
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gagagactgg attattacac taagccccag ggactggata aagagccaaa actgccccca  
660  
aagttggcag gcccgctgca caaaattatc accacaacga atcttcatcc tgtcaagatc  
720  
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780  
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960  
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1200  
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1260  
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1320  
gaaaaccacg gcaaacttga tgtcaattct aactgtgtta atgaagagca accagaggct  
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1440  
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 aaaa  
 2524

&lt;210&gt; 5522

&lt;211&gt; 441

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5522

Met Val His Ile Lys Lys Gly Glu Leu Thr Gln Glu Glu Lys Glu Leu  
 1 5 10 15  
 Leu Glu Val Ile Gly Lys Gly Thr Val Gln Glu Ala Gly Thr Leu Leu  
 20 25 30  
 Ser Ser Lys Asn Val Arg Val Asn Cys Leu Asp Glu Asn Gly Met Thr  
 35 40 45  
 Pro Leu Met His Ala Ala Tyr Lys Gly Lys Leu Asp Met Cys Lys Leu  
 50 55 60  
 Leu Leu Arg His Gly Ala Asp Val Asn Cys His Gln His Glu His Gly  
 65 70 75 80  
 Tyr Thr Ala Leu Met Phe Ala Ala Leu Ser Gly Asn Lys Asp Ile Thr  
 85 90 95  
 Trp Val Met Leu Glu Ala Gly Ala Glu Thr Asp Val Val Asn Ser Val  
 100 105 110  
 Gly Arg Thr Ala Ala Gln Met Ala Ala Phe Val Gly Gln His Asp Cys  
 115 120 125  
 Val Thr Ile Ile Asn Asn Phe Phe Pro Arg Glu Arg Leu Asp Tyr Tyr  
 130 135 140  
 Thr Lys Pro Gln Gly Leu Asp Lys Glu Pro Lys Leu Pro Pro Lys Leu

145                      150                      155                      160  
 Ala Gly Pro Leu His Lys Ile Ile Thr Thr Thr Asn Leu His Pro Val  
                                  165                      170                      175  
 Lys Ile Val Met Leu Val Asn Glu Asn Pro Leu Thr Glu Glu Ala  
                                  180                      185                      190  
 Ala Leu Asn Lys Cys Tyr Arg Val Met Asp Leu Ile Cys Glu Lys Cys  
                                  195                      200                      205  
 Met Lys Gln Arg Asp Met Asn Glu Val Leu Ala Met Lys Met His Tyr  
                                  210                      215                      220  
 Ile Ser Cys Ile Phe Gln Lys Cys Ile Asn Phe Leu Lys Asp Gly Glu  
 225                                   230                                   235                                   240  
 Asn Lys Leu Asp Thr Leu Ile Lys Ser Leu Leu Lys Gly Arg Ala Ser  
                                  245                                   250                                   255  
 Asp Gly Phe Pro Val Tyr Gln Glu Lys Ile Ile Arg Glu Ser Ile Arg  
                                  260                                   265                                   270  
 Lys Phe Pro Tyr Cys Glu Ala Thr Leu Leu Gln Gln Leu Val Arg Ser  
                                  275                                   280                                   285  
 Ile Ala Pro Val Glu Ile Gly Ser Asp Pro Thr Ala Phe Ser Val Leu  
 290                                   295                                   300  
 Thr Gln Ala Ile Thr Gly Gln Val Gly Phe Val Asp Val Glu Phe Cys  
 305                                   310                                   315                                   320  
 Thr Thr Cys Gly Glu Lys Gly Ala Ser Lys Arg Cys Ser Val Cys Lys  
                                  325                                   330                                   335  
 Met Val Ile Tyr Cys Asp Gln Thr Cys Gln Lys Thr His Trp Phe Thr  
                                  340                                   345                                   350  
 His Lys Lys Ile Cys Lys Asn Leu Lys Asp Ile Tyr Glu Lys Gln Gln  
                                  355                                   360                                   365  
 Leu Glu Ala Ala Lys Glu Lys Arg Gln Glu Glu Asn His Gly Lys Leu  
 370                                   375                                   380  
 Asp Val Asn Ser Asn Cys Val Asn Glu Glu Gln Pro Glu Ala Glu Val  
 385                                   390                                   395  
 Gly Ile Ser Gln Arg Asp Ser Asn Pro Glu Asp Ser Gly Glu Lys  
                                  405                                   410                                   415  
 Lys Glu Ser Leu Glu Ser Glu Ala Glu Leu Glu Gly Leu Gln Asp Ala  
                                  420                                   425                                   430  
 Pro Ala Gly Pro Gln Val Ser Glu Glu  
                                  435                                   440

&lt;210&gt; 5523

&lt;211&gt; 6190

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5523

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&lt;210&gt; 5524

&lt;211&gt; 1193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5524

Met	Pro	Arg	Gly	Glu	Ala	Pro	Gly	Pro	Gly	Arg	Arg	Gly	Ala	Lys	Asp
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Glu	Ala	Leu	Gly	Glu	Glu	Ser	Gly	Glu	Arg	Trp	Ser	Pro	Glu	Phe	His
			20					25					30		
Leu	Gln	Arg	Lys	Leu	Ala	Asp	Ser	Ser	His	Ser	Glu	Gln	Gln	Asp	Arg
			35				40					45			
Asn	Arg	Val	Ser	Glu	Glu	Leu	Ile	Met	Val	Val	Gln	Glu	Met	Lys	Lys
			50			55					60				
Tyr	Phe	Pro	Ser	Glu	Arg	Arg	Asn	Lys	Pro	Ser	Thr	Leu	Asp	Ala	Leu
65					70					75				80	
Asn	Tyr	Ala	Leu	Arg	Cys	Val	His	Ser	Val	Gln	Ala	Asn	Ser	Glu	Phe

			85				90				95				
Phe	Gln	Ile	Leu	Ser	Gln	Asn	Gly	Ala	Pro	Gln	Ala	Asp	Val	Ser	Met
			100					105				110			
Tyr	Ser	Leu	Glu	Glu	Leu	Ala	Thr	Ile	Ala	Ser	Glu	His	Thr	Ser	Lys
			115				120					125			
Asn	Thr	Asp	Thr	Phe	Val	Ala	Val	Phe	Ser	Phe	Leu	Ser	Gly	Arg	Leu
			130			135					140				
Val	His	Ile	Ser	Glu	Gln	Ala	Ala	Leu	Ile	Leu	Asn	Arg	Lys	Lys	Asp
			145			150				155					160
Val	Leu	Ala	Ser	Ser	His	Phe	Val	Asp	Leu	Leu	Ala	Pro	Gln	Asp	Met
			165					170						175	
Arg	Val	Phe	Tyr	Ala	His	Thr	Ala	Arg	Ala	Gln	Leu	Pro	Phe	Trp	Asn
			180				185						190		
Asn	Trp	Thr	Gln	Arg	Ala	Ala	Arg	Tyr	Glu	Cys	Ala	Pro	Val	Lys	Pro
			195				200					205			
Phe	Phe	Cys	Arg	Ile	Arg	Gly	Gly	Glu	Asp	Arg	Lys	Gln	Glu	Lys	Cys
			210			215					220				
His	Ser	Pro	Phe	Arg	Ile	Ile	Pro	Tyr	Leu	Ile	His	Val	His	His	Pro
			225			230				235					240
Ala	Gln	Pro	Glu	Leu	Glu	Ser	Glu	Pro	Cys	Cys	Leu	Thr	Val	Val	Glu
			245						250					255	
Lys	Ile	His	Ser	Gly	Tyr	Glu	Ala	Pro	Arg	Ile	Pro	Val	Asn	Lys	Arg
			260				265					270			
Ile	Phe	Thr	Thr	Thr	His	Thr	Pro	Gly	Cys	Val	Phe	Leu	Glu	Val	Asp
			275				280					285			
Glu	Lys	Ala	Val	Pro	Leu	Leu	Gly	Tyr	Leu	Pro	Gln	Asp	Leu	Ile	Gly
			290			295				300					
Thr	Ser	Ile	Leu	Ser	Tyr	Leu	His	Pro	Glu	Asp	Arg	Ser	Leu	Met	Val
			305			310				315					320
Ala	Ile	His	Gln	Lys	Gly	His	Pro	Pro	Phe	Glu	His	Ser	Pro	Ile	Arg
			325					330						335	
Phe	Cys	Thr	Gln	Asn	Gly	Asp	Tyr	Ile	Ile	Leu	Asp	Ser	Ser	Trp	Ser
			340				345						350		
Ser	Phe	Val	Asn	Pro	Trp	Ser	Arg	Lys	Ile	Ser	Phe	Ile	Ile	Gly	Arg
			355			360					365				
His	Lys	Val	Arg	Thr	Ser	Pro	Leu	Asn	Glu	Asp	Val	Phe	Ala	Thr	Lys
			370			375					380				
Ile	Lys	Lys	Met	Asn	Asp	Asn	Asp	Lys	Asp	Ile	Thr	Glu	Leu	Gln	Glu
			385			390			395						400
Gln	Ile	Tyr	Lys	Leu	Leu	Gln	Pro	Val	His	Val	Ser	Val	Ser	Ser	
			405				410						415		
Gly	Tyr	Gly	Ser	Leu	Gly	Ser	Ser	Gly	Ser	Gln	Glu	Gln	Leu	Val	Ser
			420				425						430		
Ile	Ala	Ser	Ser	Ser	Glu	Ala	Ser	Gly	His	Arg	Val	Glu	Glu	Thr	Lys
			435			440					445				
Ala	Glu	Gln	Met	Thr	Leu	Gln	Gln	Val	Tyr	Ala	Ser	Val	Asn	Lys	Ile
			450			455					460				
Lys	Asn	Leu	Gly	Gln	Gln	Leu	Tyr	Ile	Glu	Ser	Met	Thr	Lys	Ser	Ser
			465			470			475						480
Phe	Lys	Pro	Val	Thr	Gly	Thr	Arg	Thr	Glu	Pro	Asn	Gly	Gly	Gly	Glu
			485					490					495		
Cys	Lys	Thr	Phe	Thr	Ser	Phe	His	Gln	Thr	Leu	Lys	Asn	Asn	Ser	Val
			500					505					510		

Tyr Thr Glu Pro Cys Glu Asp Leu Arg Asn Asp Glu His Ser Pro Ser  
 515 520 525  
 Tyr Gln Gln Ile Asn Cys Ile Asp Ser Val Ile Arg Tyr Leu Lys Ser  
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 Val Gln Ala Leu Gln Gly Asn Lys Asn Ala Pro Gln Lys Met Pro Thr  
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 Ser Thr Ile Val His Val Pro Pro Pro Glu Thr Ala Arg Asp Ala Thr  
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 645 650 655  
 Ser Glu Glu Phe Lys His Val Gly Leu Thr Ala Ala Val Leu Ser Ala  
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 His Thr Gln Lys Glu Glu Gln Asn Tyr Val Asp Lys Phe Arg Glu Lys  
 675 680 685  
 Ile Leu Ser Ser Pro Tyr Ser Ser Tyr Leu Gln Gln Glu Ser Arg Ser  
 690 695 700  
 Lys Ala Lys Tyr Ser Tyr Phe Gln Gly Asp Ser Thr Ser Lys Gln Thr  
 705 710 715 720  
 Arg Ser Ala Gly Cys Arg Lys Gly Lys His Lys Arg Lys Lys Leu Pro  
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 Glu Pro Pro Asp Ser Ser Ser Ser Asn Thr Gly Ser Gly Pro Arg Arg  
 740 745 750  
 Gly Ala His Gln Asn Ala Gln Pro Cys Cys Pro Ser Ala Ala Ser Ser  
 755 760 765  
 Pro His Thr Ser Ser Pro Thr Phe Pro Pro Ala Ala Met Val Pro Ser  
 770 775 780  
 Gln Ala Pro Tyr Leu Val Pro Ala Phe Pro Leu Pro Ala Ala Thr Ser  
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 Pro Gly Arg Glu Tyr Ala Ala Pro Gly Thr Ala Pro Glu Gly Leu His  
 805 810 815  
 Gly Pro Pro Leu Ser Glu Gly Leu Gln Pro Tyr Pro Ala Phe Pro Phe  
 820 825 830  
 Pro Tyr Leu Asp Thr Phe Met Thr Val Phe Leu Pro Asp Pro Pro Val  
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 Ser Glu Ser Pro Asp Gln Met Arg Arg Asn Thr Cys Pro Gln Thr Glu  
 930 935 940

Tyr Gln Cys Val Thr Gly Asn Asn Gly Ser Glu Ser Ser Pro Ala Thr  
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 Gly Gln Val Leu Val Glu Asp Ser Cys  
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&lt;210&gt; 5525

&lt;211&gt; 761

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5525

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&lt;210&gt; 5526

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5526

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 Glu Ile Thr Gln Leu Glu Ser Trp Glu Glu Pro Phe Met Pro Ala Trp  
 50 55 60  
 Glu Val Val Thr Ser Ala Ile Pro Arg Glu Thr Leu Arg Met Ala Phe  
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 Met Arg Glu Leu Ala Ile Glu His His Ser Ser Lys Tyr Ala His Trp  
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 Arg Gln Asp Glu Asn Ser  
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&lt;210&gt; 5527

&lt;211&gt; 728

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5527

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<210> 5528

<211> 176

<212> PRT

<213> Homo sapiens

<400> 5528

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 Val Thr Gly Leu Lys Leu Ser Gln Asp Leu Asp Asp Leu Ala Ile Leu  
 35 40 45  
 Tyr Leu Ala Thr Val Gln Ala Ile Ala Leu Gly Thr Arg Phe Ile Ile  
 50 55 60  
 Glu Ala Met Glu Ala Ala Gly His Ser Ile Ser Thr Leu Phe Leu Cys  
 65 70 75 80  
 Gly Gly Leu Ser Lys Asn Pro Leu Phe Val Gln Met His Ala Asp Ile  
 85 90 95  
 Thr Gly Met Pro Val Val Leu Ser Gln Glu Val Glu Ser Val Leu Val  
 100 105 110  
 Gly Ala Ala Val Leu Gly Ala Cys Ala Ser Gly Asp Phe Ala Ser Val  
 115 120 125  
 Gln Glu Ala Met Ala Lys Met Ser Lys Val Gly Lys Val Val Phe Pro  
 130 135 140  
 Arg Leu Gln Asp Lys Lys Tyr Tyr Asp Lys Lys Tyr Gln Val Phe Leu  
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<210> 5529

<211> 2602

<212> DNA

<213> Homo sapiens

<400> 5529

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360  
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&lt;210&gt; 5530

&lt;211&gt; 603

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5530

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 Leu Asn Leu Cys Ala Arg Arg Arg Thr Arg Val Gln Arg Pro Ile Val  
 35 40 45  
 Arg Leu Leu Ser Cys Pro Gly Thr Val Ala Lys Asp Leu Arg Arg Asp  
 50 55 60  
 Glu Gln Pro Ser Gly Ser Val Glu Thr Gly Phe Glu Asp Lys Ile Pro  
 65 70 75 80  
 Lys Arg Arg Phe Ser Glu Met Gln Asn Glu Arg Arg Glu Gln Ala Gln  
 85 90 95  
 Arg Thr Val Leu Ile His Cys Pro Glu Lys Ile Ser Glu Asn Lys Phe  
 100 105 110  
 Leu Lys Tyr Leu Ser Gln Phe Gly Pro Ile Asn Asn His Phe Phe Tyr  
 115 120 125  
 Glu Ser Phe Gly Leu Tyr Ala Val Val Glu Phe Cys Gln Lys Glu Ser  
 130 135 140  
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 <213> Homo sapiens

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<210> 5532

<211> 593

<212> PRT

<213> Homo sapiens

<400> 5532

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 35 40 45  
 Glu Asn Gly Gln Arg Lys Tyr Gly Gly Pro Pro Pro Gly Trp Glu Gly  
 50 55 60  
 Pro His Pro Gln Arg Gly Cys Glu Val Phe Val Gly Lys Ile Pro Arg  
 65 70 75 80  
 Asp Val Tyr Glu Asp Glu Leu Val Pro Val Phe Glu Ala Val Gly Arg  
 85 90 95  
 Ile Tyr Glu Leu Arg Leu Met Met Asp Phe Asp Gly Lys Asn Arg Gly  
 100 105 110  
 Tyr Ala Phe Val Met Tyr Cys His Lys His Glu Ala Lys Arg Ala Val  
 115 120 125  
 Arg Glu Leu Asn Asn Tyr Glu Ile Arg Pro Gly Arg Leu Leu Gly Val  
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 Cys Cys Ser Val Asp Asn Cys Arg Leu Phe Ile Gly Gly Ile Pro Lys  
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 Gly Val Leu Asp Val Ile Val Tyr Ala Ser Ala Ala Asp Lys Met Lys  
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 Asn Arg Gly Phe Ala Phe Val Glu Tyr Glu Ser His Arg Ala Ala Ala  
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 Gln Ile Ala Val Asp Trp Ala Glu Pro Glu Ile Asp Val Asp Glu Asp  
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 Val Met Glu Thr Val Lys Ile Leu Tyr Val Arg Asn Leu Met Ile Glu  
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 260 265 270  
 Cys Val Glu Arg Val Lys Lys Ile Arg Asp Tyr Ala Phe Val His Phe  
 275 280 285  
 Thr Ser Arg Glu Asp Ala Val His Ala Met Asn Asn Leu Asn Gly Thr  
 290 295 300  
 Glu Leu Glu Gly Ser Cys Leu Glu Val Thr Leu Ala Lys Pro Val Asp  
 305 310 315 320  
 Lys Glu Gln Tyr Ser Arg Tyr Gln Lys Ala Ala Arg Gly Gly Gly Ala  
 325 330 335  
 Ala Glu Ala Ala Gln Gln Pro Ser Tyr Val Tyr Ser Cys Asp Pro Tyr

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    370          375          380
Ala Ala Gly Asn Arg Ala Pro Gly Pro Arg Gly Ser Tyr Leu Gly Gly
    385          390          395          400
Tyr Ser Ala Gly Arg Gly Ile Tyr Ser Arg Tyr His Glu Gly Lys Gly
          405          410          415
Lys Gln Gln Glu Lys Gly Tyr Glu Leu Val Pro Asn Leu Glu Ile Pro
          420          425          430
Thr Val Asn Pro Val Ala Ile Lys Pro Gly Thr Val Ala Ile Pro Ala
          435          440          445
Ile Gly Ala Gln Tyr Ser Met Phe Pro Ala Ala Pro Ala Pro Lys Met
          450          455          460
Ile Glu Asp Gly Lys Ile His Thr Val Glu His Met Ile Ser Pro Ile
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Ala Val Gln Pro Asp Pro Ala Ser Ala Ala Ala Ala Ala Ala Ala
          485          490          495
Ala Ala Ala Ala Ala Val Ile Pro Thr Val Ser Thr Pro Pro Pro
          500          505          510
Phe Gln Gly Arg Pro Ile Thr Pro Val Tyr Thr Val Ala Pro Asn Val
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Gln Arg Ile Pro Thr Ala Gly Ile Tyr Gly Ala Ser Tyr Val Pro Phe
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Tyr

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&lt;210&gt; 5533

&lt;211&gt; 505

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5533

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 <212> PRT  
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 <213> Homo sapiens

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1887

&lt;210&gt; 5536

&lt;211&gt; 306

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5536

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Pro Gly Glu Thr Pro Lys His Gln Pro Gly Ser Pro Arg Gly Ser Gly
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Arg Glu Glu Asp Asp Glu Leu Leu Gly Asn Asp Asp Ser Asp Lys Thr
50      55      60
Glu Leu Leu Ala Gly Gln Lys Lys Ser Ser Pro Phe Trp Thr Phe Glu
65      70      75      80
Tyr Tyr Gln Thr Phe Phe Asp Val Asp Thr Tyr Gln Val Phe Asp Arg
85      90      95
Ile Lys Gly Ser Leu Leu Pro Ile Pro Gly Lys Asn Phe Val Arg Leu
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Tyr Ile Arg Ser Asn Pro Asp Leu Tyr Gly Pro Phe Trp Ile Cys Ala
115     120     125
Thr Leu Val Phe Ala Ile Ala Ile Ser Gly Asn Leu Ser Asn Phe Leu
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Ile His Leu Gly Glu Lys Thr Tyr His Tyr Val Pro Glu Phe Arg Lys
145     150     155     160
Val Ser Ile Ala Ala Thr Ile Ile Tyr Ala Tyr Ala Trp Leu Val Pro
165     170     175
Leu Ala Leu Trp Gly Phe Leu Met Trp Arg Asn Ser Lys Val Met Asn
180     185     190
Ile Val Ser Tyr Ser Phe Leu Glu Ile Val Cys Val Tyr Gly Tyr Ser
195     200     205
Leu Phe Ile Tyr Ile Pro Thr Ala Ile Leu Trp Ile Ile Pro Gln Lys
210     215     220
Ala Val Arg Trp Ile Leu Val Met Ile Ala Leu Gly Ile Ser Gly Ser
225     230     235     240
Leu Leu Ala Met Thr Phe Trp Pro Ala Val Arg Glu Asp Asn Arg Arg
245     250     255
Val Ala Leu Ala Thr Ile Val Thr Ile Val Leu Leu His Met Leu Leu
260     265     270
Ser Val Gly Cys Leu Ala Tyr Phe Phe Asp Ala Pro Glu Met Asp His
275     280     285
Leu Pro Thr Thr Thr Ala Thr Pro Asn Gln Thr Val Ala Ala Ala Lys
290     295     300
Ser Ser
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&lt;210&gt; 5537

&lt;211&gt; 2881

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5537

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&lt;210&gt; 5538

&lt;211&gt; 352

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5538

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 Ala Glu Leu Arg His Leu Asp Thr Gln Val Gln Arg Cys Glu Asp Ile  
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 Leu Gln Gln Leu Gln Ala Val Val Pro Gln Ile Asp Met Glu Gly Asp

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Asn Pro Val Val Met Lys Asp Gly Lys Trp Val Val Gln Lys Tyr Ile
      100              105              110
Glu Arg Pro Leu Leu Ile Phe Gly Thr Lys Phe Asp Leu Arg Gln Trp
      115              120              125
Phe Leu Val Thr Asp Trp Asn Pro Leu Thr Val Trp Phe Tyr Arg Asp
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Asn Ser Val His Leu Cys Asn Asn Ser Ile Gln Lys His Leu Glu Asn
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Ser Cys His Arg His Pro Leu Leu Pro Pro Asp Asn Met Trp Ser Ser
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Gln Arg Phe Gln Ala His Leu Gln Glu Met Gly Ala Pro Asn Ala Trp
      195              200              205
Ser Thr Ile Ile Val Pro Gly Met Lys Asp Ala Val Ile His Ala Leu
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Gln Thr Ser Gln Asp Thr Val Gln Cys Arg Lys Ala Ser Phe Glu Leu
      225              230              235              240
Tyr Gly Ala Asp Phe Val Phe Gly Glu Asp Phe Gln Pro Trp Leu Ile
      245              250              255
Glu Ile Asn Ala Ser Pro Thr Met Ala Pro Ser Thr Ala Val Thr Ala
      260              265              270
Arg Leu Cys Ala Gly Val Gln Ala Asp Thr Leu Arg Val Ile Asp
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Lys Gln Pro Val Thr Thr Ser Pro Ala Ser Thr Pro Arg Pro Ser Cys
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&lt;210&gt; 5539

&lt;211&gt; 1887

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5539

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<210> 5540  
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 <212> PRT  
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<400> 5540  
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 Ala Pro Trp Cys Ser Val Ser Ser Gly Pro Ser Arg Tyr Val Leu Gly  
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 Met Gln Glu Leu Phe Arg Gly His Ser Lys Thr Arg Glu Phe Leu Ala  
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 Arg Thr Gly Trp Ser Lys Lys Thr Ile Ile Gly Asp Met Gly Ile Xaa  
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 Val Asp Gln Leu Cys Trp His Pro Ser Asn Pro Asp Leu Phe Val Thr  
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 Ser Pro Asp Gly Gln Thr Ile Ala Val Gly Asn Lys Asp Asp Val Val  
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 Lys Phe Glu Val Asn Glu Ile Ser Trp Asn Asn Asp Asn Asn Met Phe  
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 <213> Homo sapiens

375

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 1854

&lt;210&gt; 5542

&lt;211&gt; 315

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5542

Met Arg Met Cys Asp Arg Gly Ile Gln Met Leu Ile Thr Thr Val Gly  
 1 5 10 15  
 Ala Phe Ala Ala Phe Ser Leu Met Thr Ile Ala Val Gly Thr Asp Tyr  
 20 25 30  
 Trp Leu Tyr Ser Arg Gly Val Cys Arg Thr Lys Ser Thr Ser Asp Asn  
 35 40 45  
 Glu Thr Ser Arg Lys Asn Glu Val Met Thr His Ser Gly Leu Trp  
 50 55 60  
 Arg Thr Cys Cys Leu Glu Gly Ala Phe Arg Gly Val Cys Lys Lys Ile  
 65 70 75 80  
 Asp His Phe Pro Glu Asp Ala Asp Tyr Glu Gln Asp Thr Ala Glu Tyr  
 85 90 95  
 Leu Leu Arg Ala Val Arg Ala Ser Ser Val Phe Pro Ile Leu Ser Val  
 100 105 110  
 Thr Leu Leu Phe Phe Gly Gly Leu Cys Val Ala Ala Ser Glu Phe His  
 115 120 125  
 Arg Ser Arg His Asn Val Ile Leu Ser Ala Gly Ile Phe Phe Val Ser  
 130 135 140  
 Ala Gly Leu Ser Asn Ile Ile Gly Ile Ile Val Tyr Ile Ser Ala Asn  
 145 150 155 160  
 Ala Gly Asp Pro Gly Gln Arg Asp Ser Lys Lys Ser Tyr Ser Tyr Gly  
 165 170 175  
 Trp Ser Phe Tyr Phe Gly Ala Phe Ser Phe Ile Ile Ala Glu Ile Val  
 180 185 190  
 Gly Val Val Ala Val His Ile Tyr Ile Glu Lys His Gln Gln Leu Arg  
 195 200 205  
 Ala Lys Ser His Ser Glu Phe Leu Lys Lys Ser Thr Phe Ala Arg Leu  
 210 215 220  
 Pro Pro Tyr Arg Tyr Arg Phe Arg Arg Arg Ser Ser Ser Arg Ser Thr  
 225 230 235 240  
 Glu Pro Arg Ser Arg Asp Leu Ser Pro Ile Ser Lys Gly Phe His Thr